SONY

NETWORK RECEIVER ADAPTOR

BKM-FW50

SERVICE MANUAL

1st Edition (Revised 2)

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

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Section 1
Service Overview

1-1. Unleaded Solder

Boards requiring use of unleaded solder are printed with a lead free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Notes

- Be sure to use the unleaded solder for the printed circuit board printed with the lead free mark.
- The unleaded solder melts at a temperature about 40 °C higher than the ordinary solder, therefore, it is recommended to use the soldering iron having a temperature regulator.
- The ordinary soldering iron can be used but the iron tip has to be applied to the solder joint for a slightly longer time. The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful.

Section 2
Firmware Version Update and Master/Sub Function

2-1. Outline

This section describes a Master/Sub function and how to upgrade the firmware of this unit.

BKM-FW50 consists of the US2 board of a network management block (hereinafter referred to as FW32) and the US1 board of a streaming controller block (hereinafter referred to as BSP15). (Refer to “4.1 Circuit Description”.) BKM-FW50 is controlled by the communication between FW32 and BSP15. A Master-Sub function is controlled the communication between BKM-FW50s.

2-2. Master/Sub Functions (Sync Play and Contents Distribution Scheduling)

This function operates when the serial number is 2005033 and higher and when the firmware version is 4.05 and higher for streaming and 4.00 and higher for a network. For more details, refer to the technical memo.

2-2-1. Outline of Master/Sub Function

About this function

- This function can be controlled on the Web window from only a service menu.
- This function can also be controlled using an ID Talk command.
- This function is not opened to an end user because the required conditions are complicated when it is used.

Master/Sub function

The functions below can be executed by setting multiple BKM-FW50s as Master and Sub.

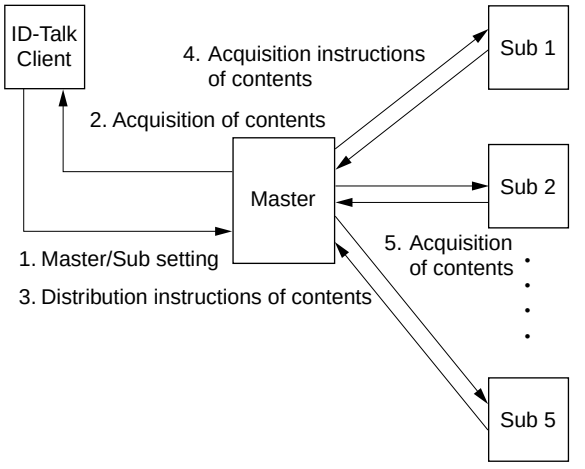
- Master > Sub Data Copy
  Function for copying the data in the compact flash of Master to the compact flash of Sub
  (Setting for reducing the traffic of a network)
- Master/Sub Sync Play
  Function for playing back the synchronized contents by Master and Sub

2-2-2. Master > Sub Data Copy Function Operation (ID-Talk/Web)

1. Operation sequence using ID-Talk command

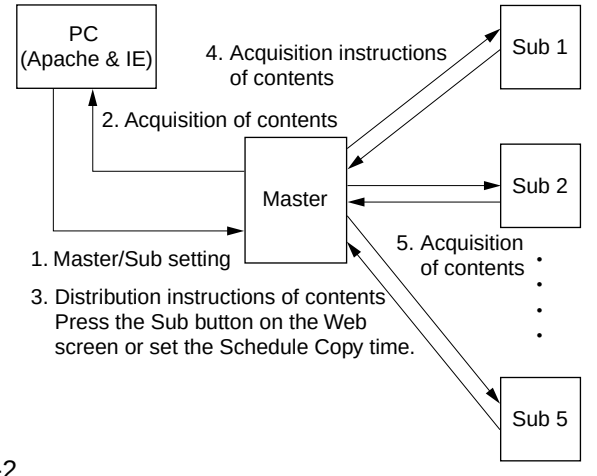
Contents are synchronized in the sequence below.

1. Set Master and Sub to BKM-FW50.
2. Master acquires arbitrary contents using an ID-Talk command.
3. A “Notify Sub of XX (contents name) acquisition” message is transmitted to Master using an ID-Talk command.
4. Master transmits an “Acquire the XX contents” message to Sub.
5. Sub acquires the specified contents from Master.



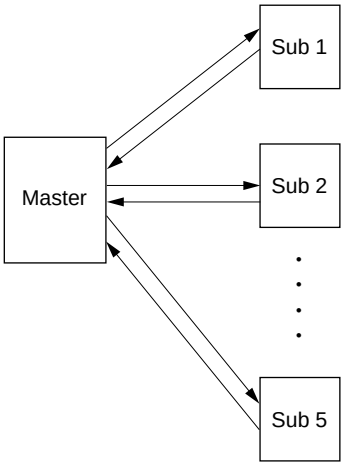
2. Operation sequence using Web

- Master and Sub are set to BKM-FW50 on the Web window.
- Master > Sub Data Copy is set on the Web window.
- Data begins to be copied according to the time set on the window or when the Store button is pressed on the “Copy” window.


PC (Apache & IE)
4. Acquisition instructions of contents
Sub 1
2. Acquisition of contents
Master
Sub 2
1. Master/Sub setting
5. Acquisition of contents
3. Distribution instructions of contents
Press the Sub button on the Web screen or set the Schedule Copy time.
Sub 5

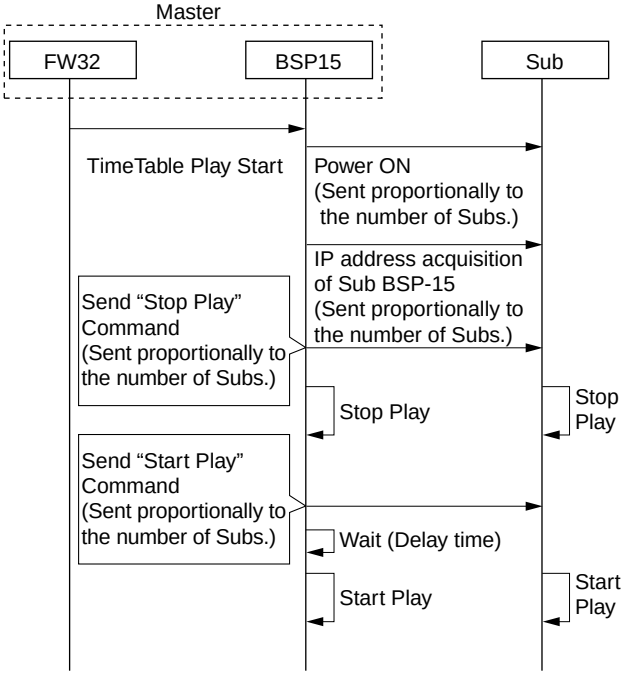
2-2-3. Setting of Master/Sub Sync Play (ID-Talk/Web)

1. Conceptual drawing of Master/Sub Sync Play



2. Operation sequence

The actual sequence of Master/Sub Sync Play is as shown below.


Master
FW32
BSP15
Sub
TimeTable Play Start
Power ON (Sent proportionally to the number of Subs.)
IP address acquisition of Sub BSP-15 (Sent proportionally to the number of Subs.)
Send “Stop Play” Command (Sent proportionally to the number of Subs.)
Stop Play
Stop Play
Send “Start Play” Command (Sent proportionally to the number of Subs.)
Wait (Delay time)
Start Play
Start Play

1. A “Time Table Play Start” command is sent from FW32 in Master to BSP15.
2. Master sends a “Power ON” command to all Subs.
3. Master acquires the IP address of all Sub BSP15s.
4. Master sends a “Stop Play” command to all Subs. (At this time, master sends the content address together that should be playback with Start Play command.)
5. Master waits for the set time (msec set in delay time).
6. Master and Sub start playback operation.

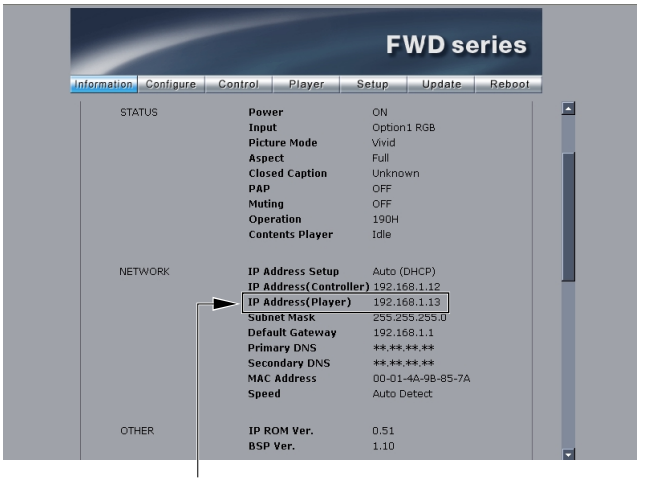
3. Usage

The playback of contents is synchronized by performing the setting below on the Web window.

1. Set Master and Sub to BKM-FW50.
2. Set the BSP15 IP address to the ID-Talk host of Sub.

   Note

   The IP address of BSP15 is displayed in IP Address (Player) of the Network column when you click on Information button on the Web window.



Indicated here

3. Arrange the same contents in Master and Sub.
4. Set the Time Table Play, Auto Play, and Scheduled Download functions of Sub to OFF so that Sub does not independently operate during sync playback.
5. Set the Time Table Play function of Master.
6. Set the Sync Play function of Master and Sub to ON.

   Note

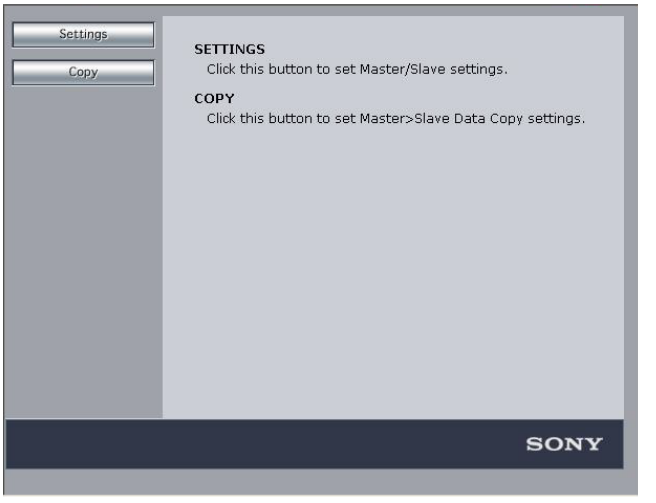
   Refer to “2-2-4. Window Configuration” together.

2-2-4. Window Configuration

1. Arrangement location of Master/Sub function

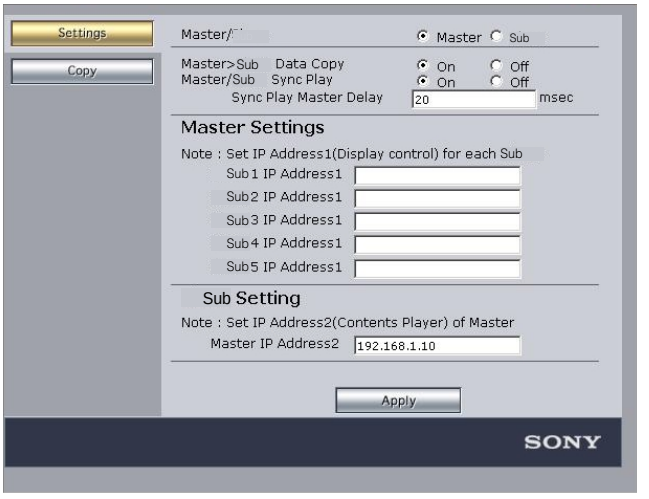
Log in to the service mode by entering “http://IP address/service of BKM-FW50 to be set”.

The setting window below is displayed when you press the Master/Sub button.



2. Master/Sub setting window

Master/Sub can be set when you press the Settings button.



- Master/Sub selection radio button:
  Press this button to select Master or Sub.

  Note

  Sub cannot be set when the check box for Master has been selected.
  Master cannot be set when the check box for Sub has been selected.
- ON/OFF radio button of Master > Sub Data Copy function:
  Press this button to select ON or OFF of a Master > Sub Data Copy function.
- ON/OFF radio button of Master/Sub Sync Play function:
  Press this button to select ON or OFF of a Master/Sub Sync Play function.
- Master Settings:
  A maximum of five Sub IP addresses can be registered.
- Sub Setting:
  Master IP Address: Specify the IP address of Master.

  Note

  This item operates even if Sub is not set because it operates according to only the instructions from Master.

3. Master/Sub Copy window

Copy can be set when you press the Copy button.

Copy can be set in the same way as for Store Local.

- Browse button: Browses the store source folder of Master.

  Note

  The store destination folder of Sub cannot be browsed.
- Store button: Copies data sequentially from Master to Sub.
- Time setting of Scheduled Copy
  Can set as in the conventional Scheduled Download function.

Caution of operation

A download start command cannot be transmitted from Master when Sub is not started. Therefore, Master BSP15 transmits a Power ON command to Sub FW32 to turn on the power.

2-3. Preparation

2-3-1. Required Equipment

- Monitor (FWD-32LX1R/40LX1/40LX2/40PX2/50PX2 etc.)
- This unit (BKM-FW50)
- Personal computer (hereafter referred to as PC)
- BKM-FW50 version update firmware

In the case of Network Management

bootloader.rom: boot file (usually not used)
image debug.rom: Network Management application file
updater.rom: Updater file

In the case of Streaming Controller

vxWorks.rom: Streaming Controller application file

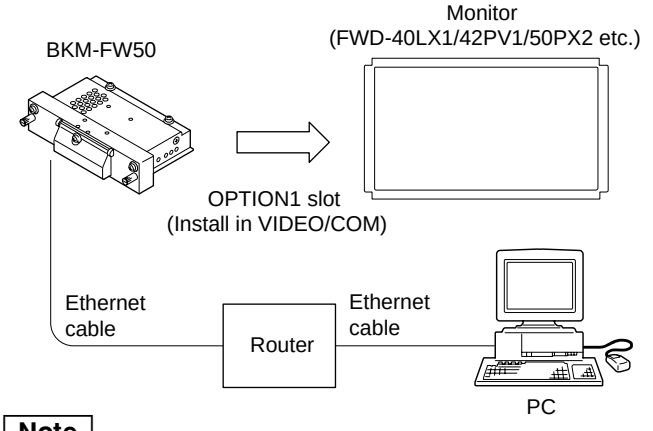
- BKM-FW50 firmware writing software:
  Firmware Update.exe

Note

The file name may be changed depending on the firmware version.
Use the latest version of Firmware Updater.

- Router
- Ethernet cable (2 pcs)

2-3-2. Connection



Note

Connect the Ethernet cable to the LAN side of the router.
Never connect it to the WAN side.

2-4. Version Update

Notes

Observe the following items in the version update.

- Do not turn off the power of the monitor and router during the version update.
- Do not use bootloader.rom unless it is required.
- In the mode of Network Management, do not use the file other than “Network Management”.
- In the mode of Streaming Controller, do not use the file other than “Streaming Controller”.

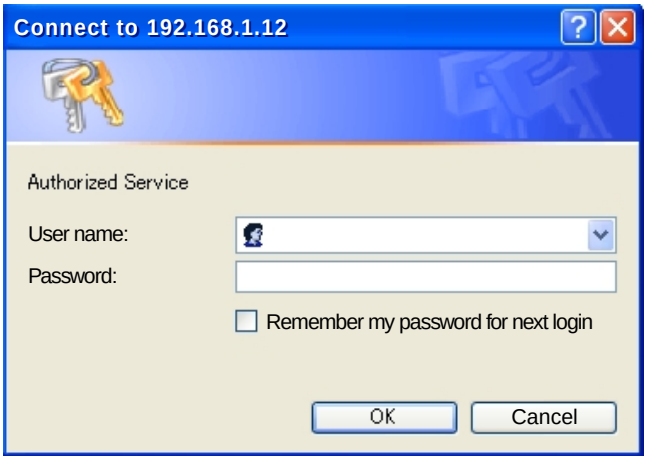
2-4-1. IP Address Acquisition

In order to access via the Web browser, acquire the IP address of this unit in the following procedure.

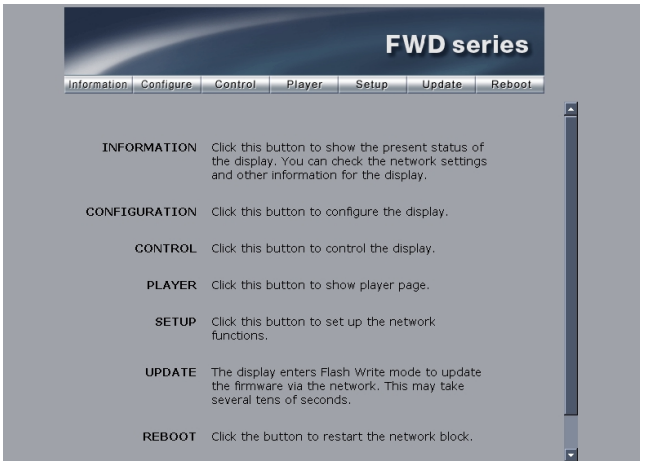
1. Turn on the power of the monitor.
2. Press the Menu button of the monitor or remote controller.
3. Select “Initial setting/Information” using the ↑ and ↓ buttons and push the Enter button.
4. Select “Information” using the ↑ and ↓ buttons and push the Enter button.
   The IP address is displayed on OSD.

2-4-2. Version Update of Network Management

1. Connect each equipment according to Section 2-3-2 and turn on the power.
2. Copy “update.rom” of the BKM-FW50 version update software to the arbitrary directory of PC.
3. Type the following URL in the address bar of the Web browser (Internet Explorer) using the IP address acquired in Section 2-4-1.
   http://acquired IP address/service
4. Type the user name and password.
   Log in the service mode.
   User name: service
   Password: fwd_series



Web window after URL is typed


FWD series
Information
Configure
Control
Player
Setup
Update
Reboot
INFORMATION
Click this button to show the present status of the display. You can check the network settings and other information for the display.
CONFIGURATION
Click this button to configure the display.
CONTROL
Click this button to control the display.
PLAYER
Click this button to show player page.
SETUP
Click this button to set up the network functions.
UPDATE
The display enters Flash Write mode to update the firmware via the network. This may take several tens of seconds.
REBOOT
Click the button to restart the network block.

Web window after logging in

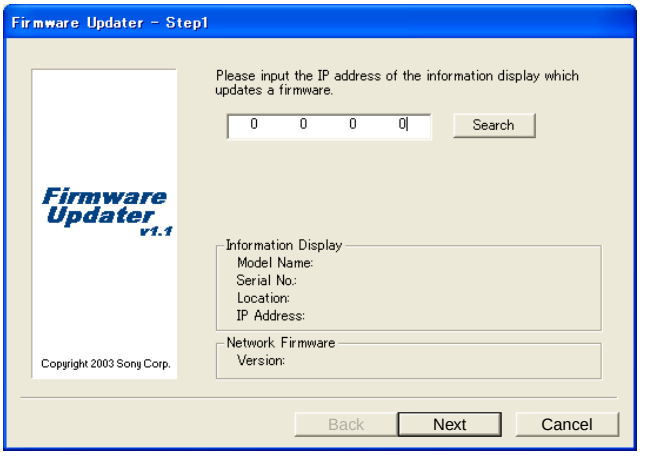
5. Click the Update button.

Web window when Update is selected

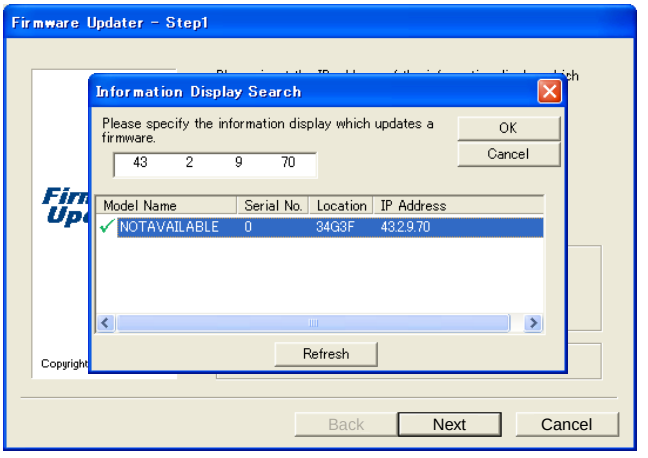
6. Select “Network Management” from the Update Module menu.
   The version update mode window is displayed.

Window of version update mode

7. Start Firmware Updater.exe.

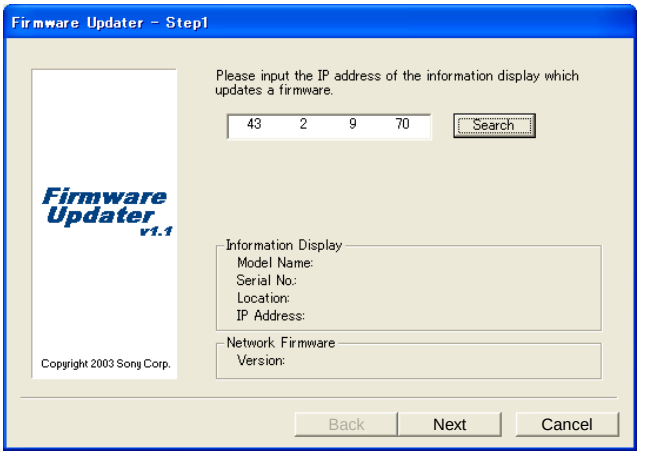


8. Click the Search button.
   “Model Name”, “Serial No.” and “IP Address” are displayed.



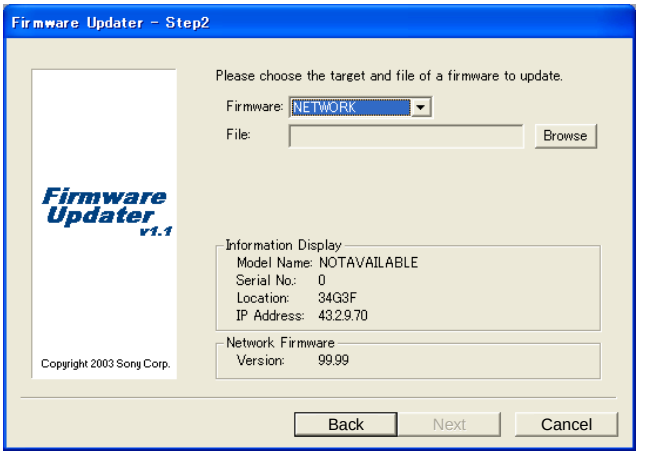
Window after device is searched

9. Click and select the item, and then click the OK button.

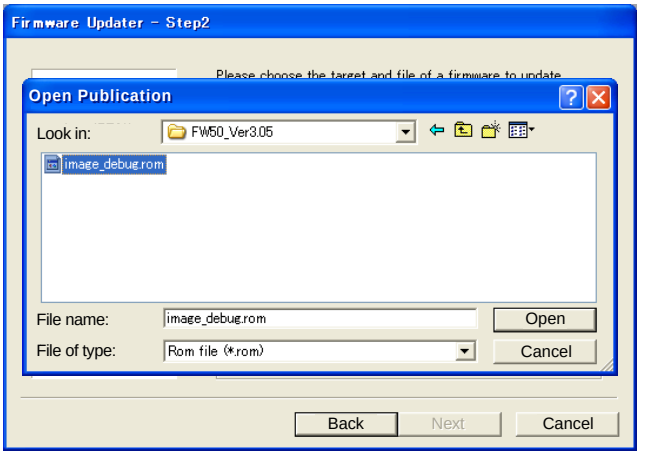


Window after device is selected

10. Click the Next button.



11. Click the Browse button.

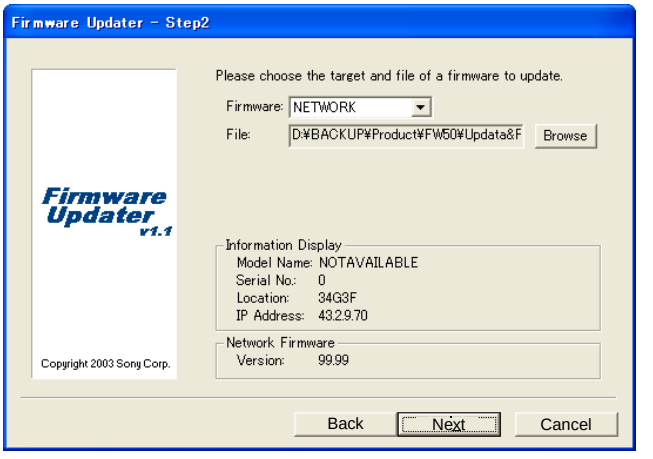


Window of software file selection

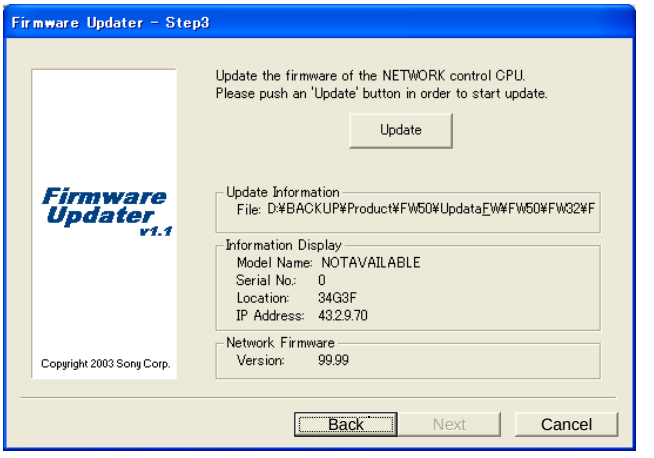
12. Click the file to be written, and then click the Open button. (Or, double-click the file to be written.)
    The directory and file name of the selected file is displayed in the “File” box.

Note

Only one file can be selected.



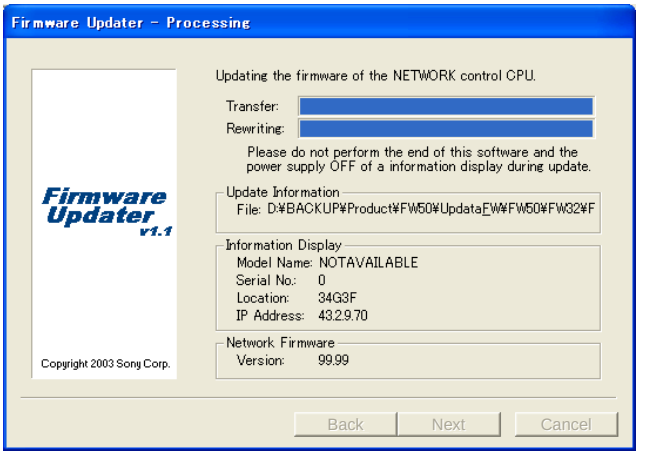
13. Click the Next button.



14. Click the Update button.
    The version update of software starts.

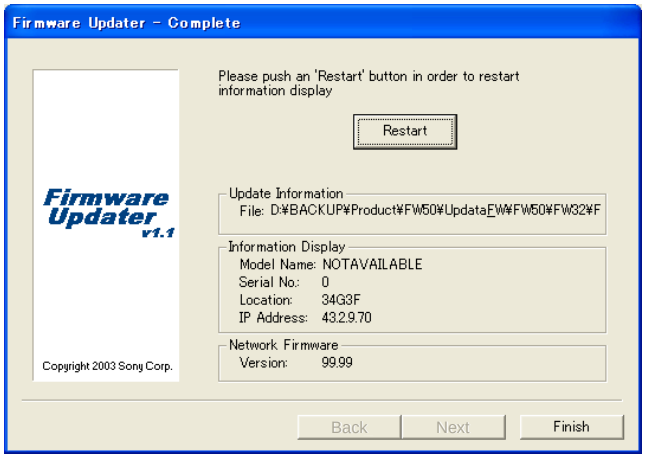
    Note

    Do not turn off the power of the monitor and router during the version update.



Window during version update

15. Check that the following window is displayed. (Completion of version update)



Window when version update is completed

2-4-3. Version Update of Streaming Controller

The version update procedure is the same as that of "Network Management" except for step 5 of Section 2-4-2. Select "Streaming Controller" instead of "Network Management". Perform the version update referring to Sections 2-4-1 and 2-4-2.

2-5. Procedure after Completion of Version Update

2-5-1. Version Update of Other File

When writing another file (Network Management file) continuously

1. Click the Finish button.
2. Perform the version update.
   - In the case of performing the version upgrade of Network Management:
     Refer to Section 2-4-2.
   - In the case of performing the version upgrade of Streaming Controller:
     Refer to Section 2-4-3.

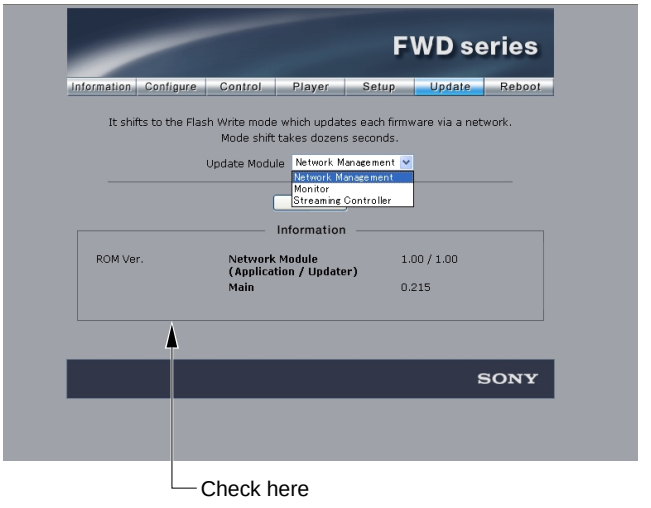
When finish the firmware update

1. Click the Restart button.
2. Click the Finish button.
   The firmware update is finished.

2-5-2. Check after Version Update (Check of Version)

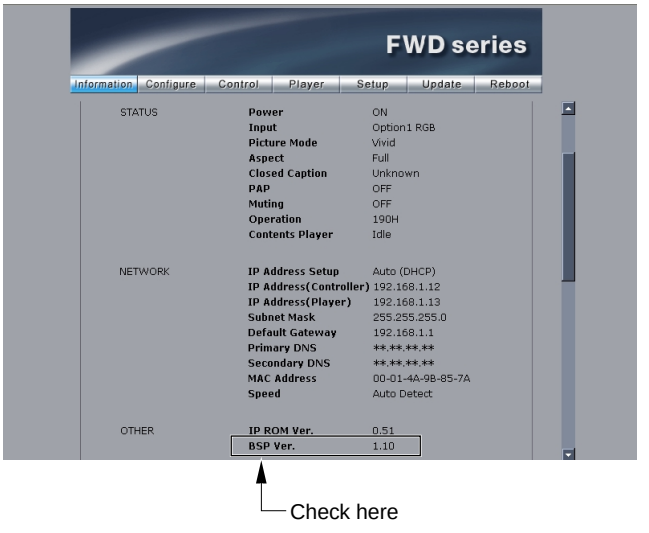
In the case of Network Management

1. Check the version by displaying the window in step 4 of Section 2-4-2.



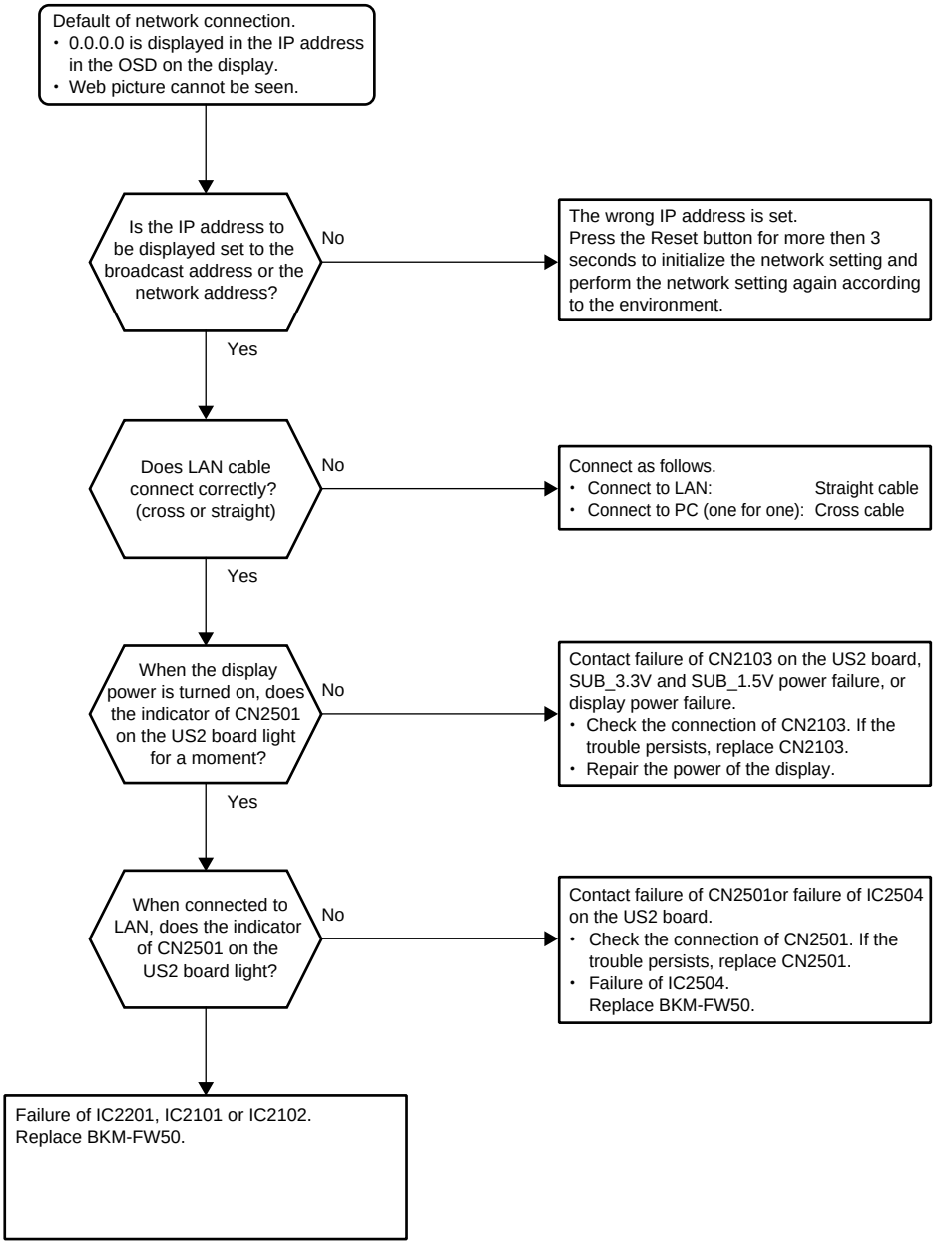
In the case of Streaming Controller

1. Display “Web window after logging in” in step 4 of Section 2-4-2.
2. Click the Information button.
   Check “BSP Ver.” in the “Other” box.

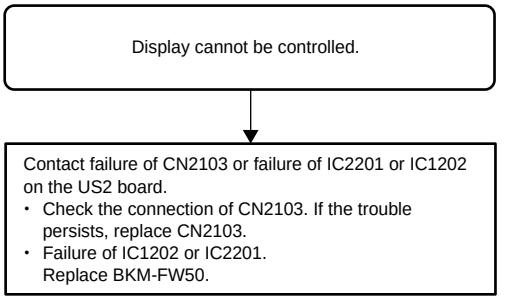


Section 3
Troubleshooting

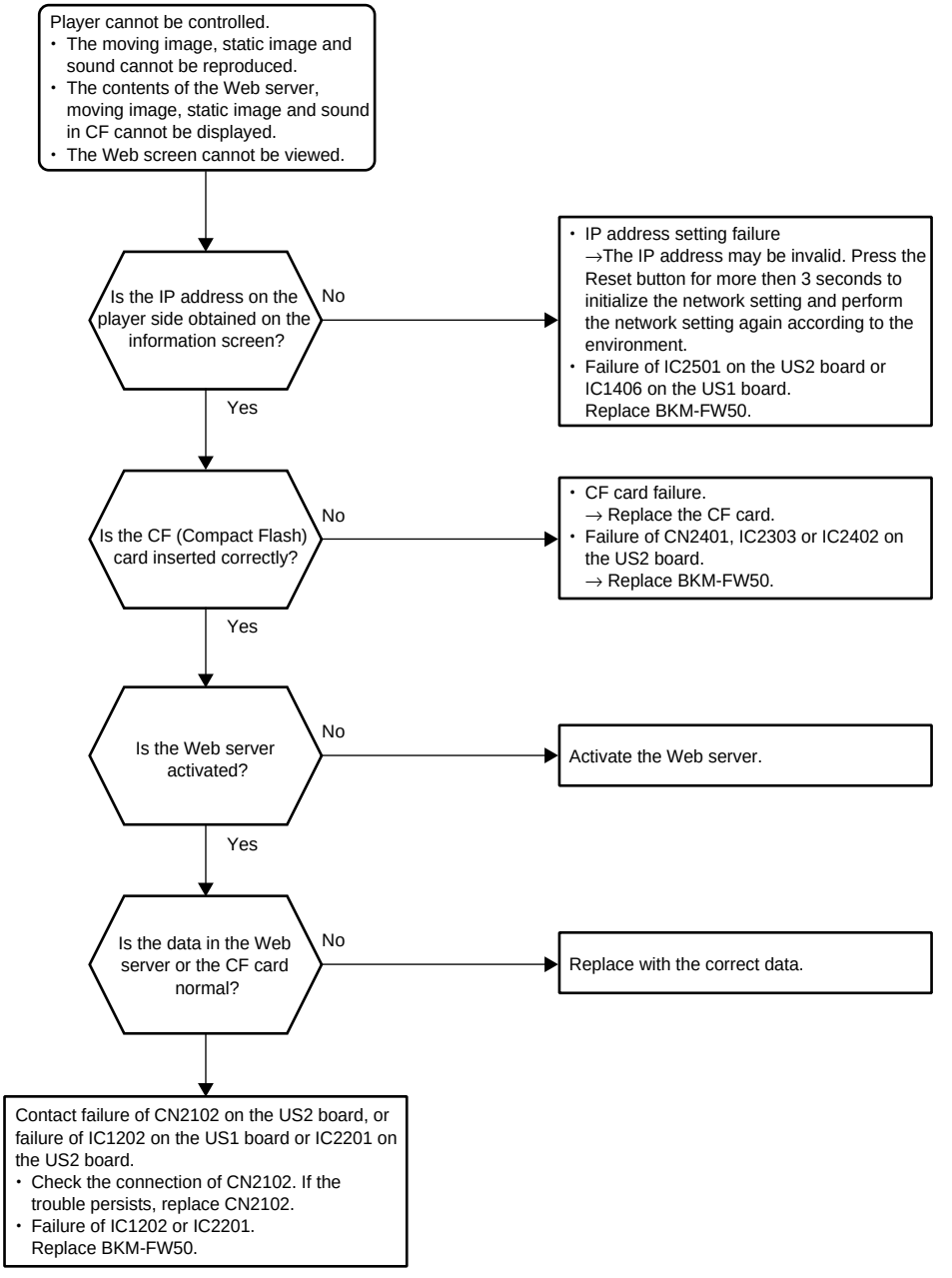
3-1. Default of Network Connection


Default of network connection.
• 0.0.0.0 is displayed in the IP address in the OSD on the display.
• Web picture cannot be seen.
Is the IP address to be displayed set to the broadcast address or the network address?
No
The wrong IP address is set.
Press the Reset button for more then 3 seconds to initialize the network setting and perform the network setting again according to the environment.
Yes
Does LAN cable connect correctly? (cross or straight)
No
Connect as follows.
• Connect to LAN: Straight cable
• Connect to PC (one for one): Cross cable
Yes
When the display power is turned on, does the indicator of CN2501 on the US2 board light for a moment?
No
Contact failure of CN2103 on the US2 board, SUB_3.3V and SUB_1.5V power failure, or display power failure.
• Check the connection of CN2103. If the trouble persists, replace CN2103.
• Repair the power of the display.
Yes
When connected to LAN, does the indicator of CN2501 on the US2 board light?
No
Contact failure of CN2501or failure of IC2504 on the US2 board.
• Check the connection of CN2501. If the trouble persists, replace CN2501.
• Failure of IC2504.
Replace BKM-FW50.
Failure of IC2201, IC2101 or IC2102.
Replace BKM-FW50.

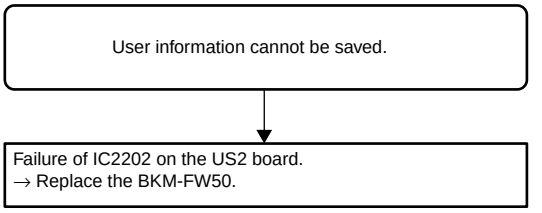
3-2. Display cannot be controlled


Display cannot be controlled.
Contact failure of CN2103 or failure of IC2201 or IC1202 on the US2 board.
・ Check the connection of CN2103. If the trouble persists, replace CN2103.
・ Failure of IC1202 or IC2201. Replace BKM-FW50.

3-3. Player cannot be controlled


Player cannot be controlled.
・ The moving image, static image and sound cannot be reproduced.
・ The contents of the Web server, moving image, static image and sound in CF cannot be displayed.
・ The Web screen cannot be viewed.
Is the IP address on the player side obtained on the information screen?
No
・ IP address setting failure →The IP address may be invalid. Press the Reset button for more then 3 seconds to initialize the network setting and perform the network setting again according to the environment.
・ Failure of IC2501 on the US2 board or IC1406 on the US1 board. Replace BKM-FW50.
Yes
Is the CF (Compact Flash) card inserted correctly?
No
・ CF card failure. → Replace the CF card.
・ Failure of CN2401, IC2303 or IC2402 on the US2 board. → Replace BKM-FW50.
Yes
Is the Web server activated?
No
Activate the Web server.
Yes
Is the data in the Web server or the CF card normal?
No
Replace with the correct data.
Contact failure of CN2102 on the US2 board, or failure of IC1202 on the US1 board or IC2201 on the US2 board.
・ Check the connection of CN2102. If the trouble persists, replace CN2102.
・ Failure of IC1202 or IC2201. Replace BKM-FW50.

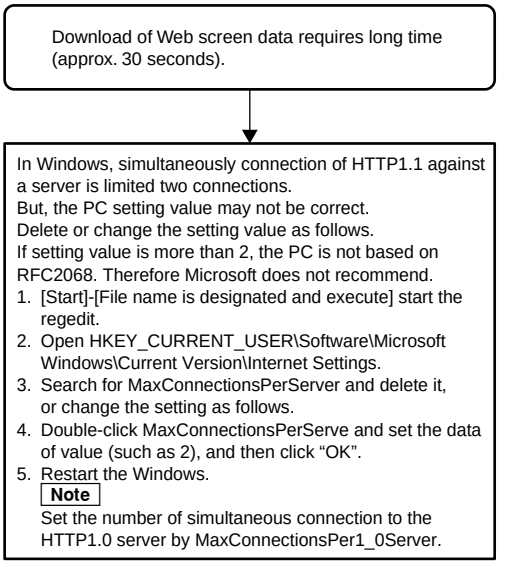
3-4. User information cannot be saved



3-5. Download of Web Screen Data Requires Long Time (approx. 30 seconds)

Note

Download time (approx. 30 seconds) varies depending on the network environment.


Download of Web screen data requires long time (approx. 30 seconds).
In Windows, simultaneously connection of HTTP1.1 against a server is limited two connections.
But, the PC setting value may not be correct.
Delete or change the setting value as follows.
If setting value is more than 2, the PC is not based on RFC2068. Therefore Microsoft does not recommend.
1. [Start]-[File name is designated and execute] start the regedit.
2. Open HKEY_CURRENT_USER\Software\Microsoft Windows\Current Version\Internet Settings.
3. Search for MaxConnectionsPerServer and delete it, or change the setting as follows.
4. Double-click MaxConnectionsPerServe and set the data of value (such as 2), and then click “OK”.
5. Restart the Windows.
Note
Set the number of simultaneous connection to the HTTP1.0 server by MaxConnectionsPer1_0Server.

Windows is the registered trademark of Microsoft Corporation in the United States and other countries.

Section 4
Circuit Description

4-1. Circuit Description

Outline

The BKM-FW50 (referred to as this unit hereinafter) is constituted by US1 and US2 boards. The US1 and US2 boards are connected using a 100-pin BtoB connector by a PCI bus.

The US1 board performs image processing such as the streaming from a Web server or the motion picture reproduction from CF (compact flash). The US2 board is obtained when an Ethernet switch controller, an Ethernet controller for a US1 board, or a USB host controller is added to the circuit of BKM-FW32 (network management adaptor board). Like BKM-FW32, the US2 board controls a display. The US2 board operates even if the display power is in the standby state and differs in operation status from the US1 board that operates when the display power is ON. Ethernet that differs from the US1 board is thus used. For this reason, one MAC address is used each for BSP-15 (IC1201) on the US1 board and NS75202 (IC2201) on the US2 board.

IC2201 (NS7520) + IC2101 (SDRAM) + IC2102 (NOR Flash)

IC2201 is MAC built-in CPU based on ARM7. Using this CPU, the US2 board of this unit is controlled and a protocol is processed. Moreover, display information is acquired and controlled by UART and GPIO.

IC1202 (BSP-15) + IC1501 to IC1504 (SDRAM) + IC1304 (NOR Flash) + IC1406 (COBRA) + IC1403 (NAND Flash)

IC1202 is a multimedia processor. Using this CPU, the US1 board of this unit is controlled, and mpeg-2, jpeg, and mp3 from CF or a streaming server are reproduced. A video signal is output using the internal D/A converter of BSP-15. An audio signal is output from IC1202 using IIS by the external D/A converter of IC1202.

IC2504 (Ethernet switch controller) + IC2501 (Ethernet controller) + CN2501 (Pulse Trans + RJ-45)

The analog signal of Ethernet data is sent and received and then converted into a digital signal.

Since, in this unit, different MAC addresses are used for NS7520 and BSP-15, Ethernet data is sent from CN2501 to a hub (IC2504). In IC2504, RTL8305 built-in PHY is used for the Ethernet communication of a US2 board, and a MII bus is used for the communication with NS7520 built-in MAC. Moreover, RTL8305 is used for the Ethernet communication of a US1 board, and IC2501 is used for the communication between IC1202. They are then connected using a PCI bus.

IC2303 (USB host controller) + IC2402 (USB2228) + CN2301 (USB Type A) + CN2401 (CF Socket)

IC2303 is a host controller that conforms to the USB2.0 standard. This host controller controls a USB port or controls a compact flash (CF) via USB2.0 flash media card reader controller IC2402.

IC2202 (EEPROM) + IC25 (EEPROM) + IC2102 (NOR Flash)

All setting values are saved in IC2202. However, the MAC address for NetSilicon is recorded in IC2102, and the MAC address for BSP-15 is memorized in IC2502.

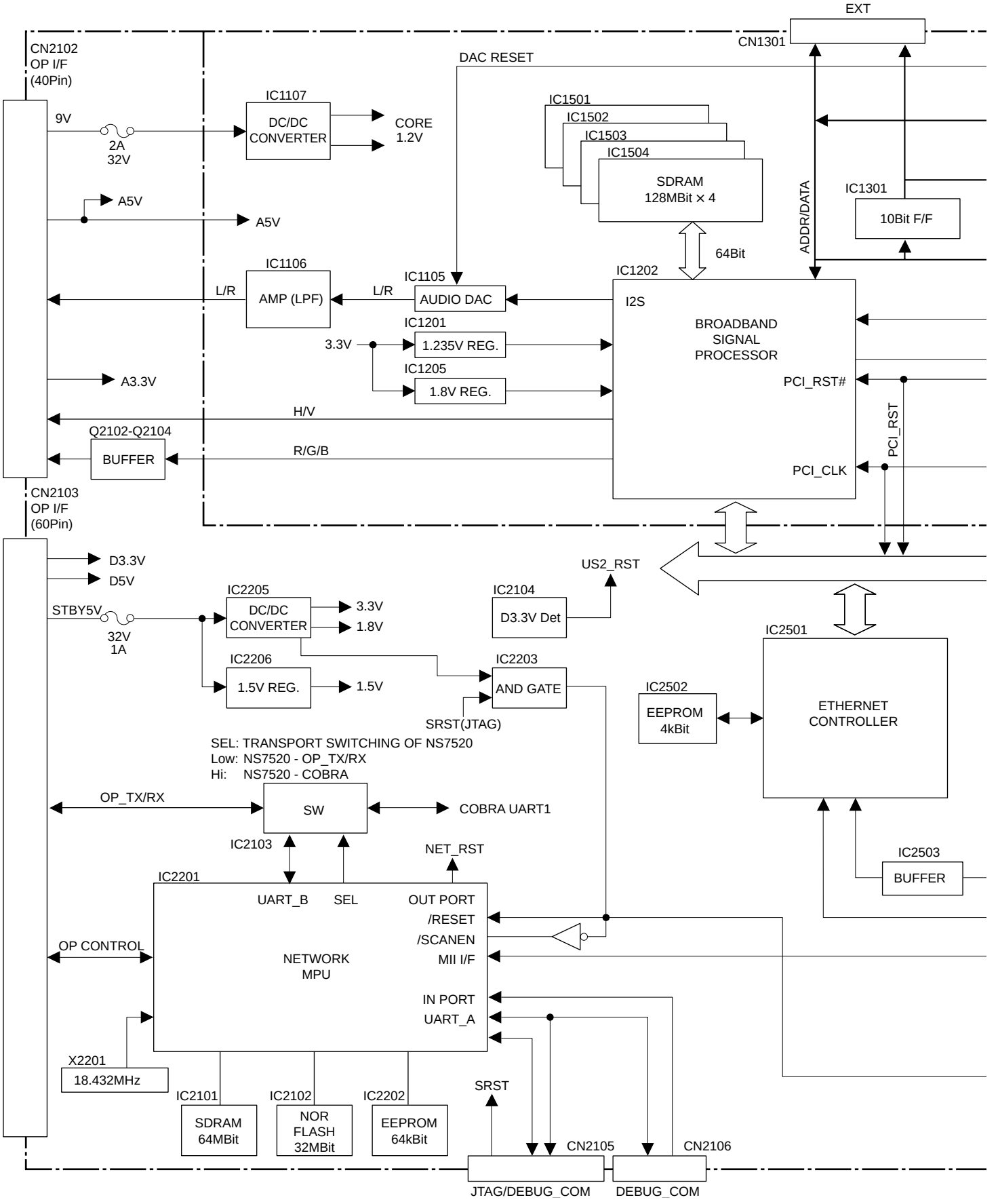
Power supply

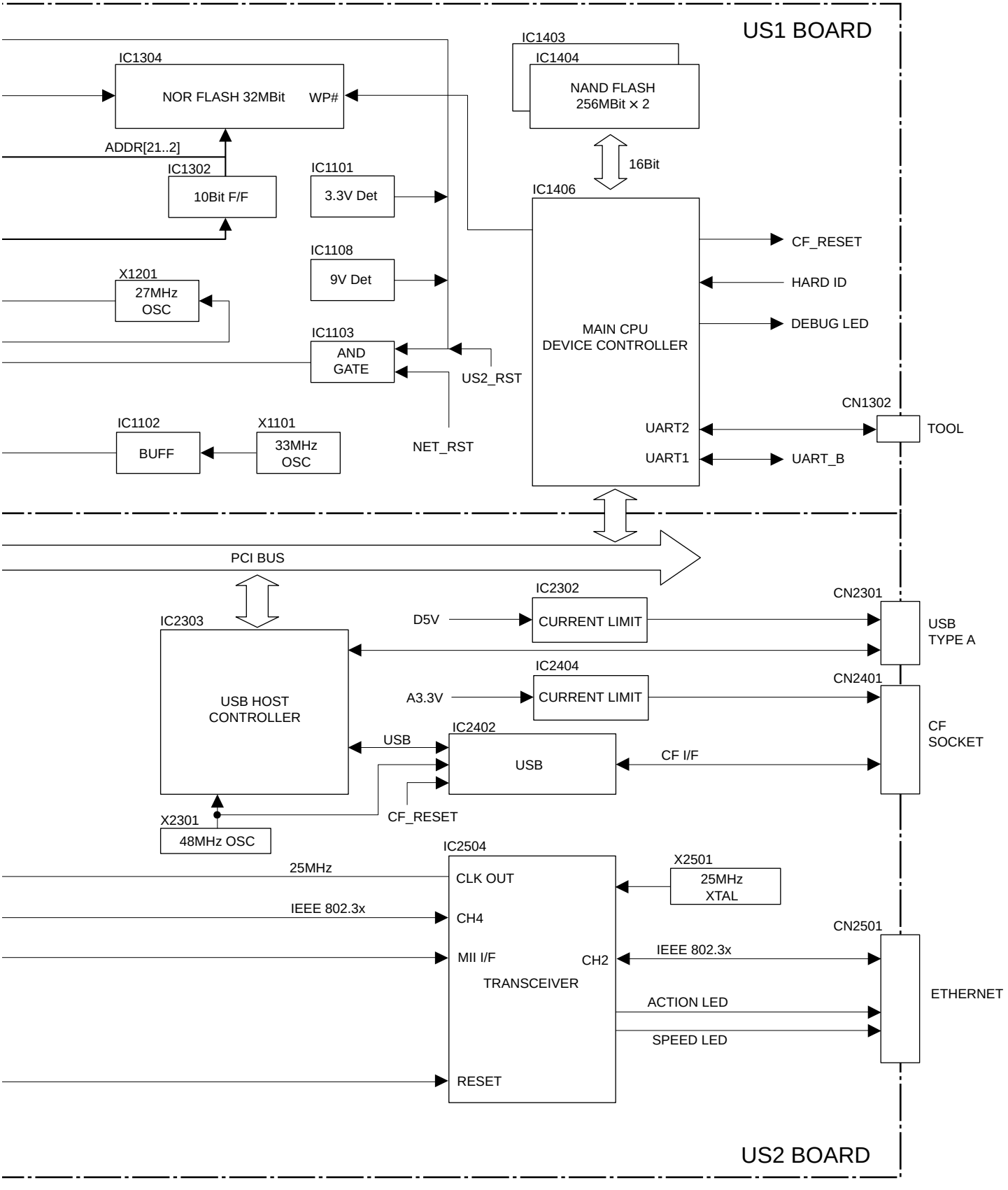
In this unit, 9 V, A5 V, A3.3 V, D5 V, D3.3 V, and STBY5 V are supplied from a display to this unit.

When power is supplied from an AC cord to a display, STBY5 V is supplied to this unit even if the power of a display is OFF. When STBY5 V is supplied to this unit, SUB_3.3 V, SUB_1.8 V, and SUB_1.5 V are generated on the US2 board so as to activate the US2 board. At that time, only the control of a display can be done on Web.

When the power of a display is turned on, the display supplies 9 V, A5 V, A3.3 V, D5 V, and D3.3 V to this unit. On the US1 board, D3.3 V and D1.2 V are generated from 9 V so as to activate the US1 board. At that time, streaming or motion picture reproduction from CF (compact flash) as well as the control of a display can be performed on Web.

4-2. Block Diagram




US1 BOARD
IC1304
NOR FLASH 32MBit
WP#
IC1403
IC1404
NAND FLASH
256MBit × 2
ADDR[21..2]
IC1302
10Bit F/F
IC1101
3.3V Det
16Bit
IC1406
IC1108
9V Det
X1201
27MHz
OSC
MAIN CPU
DEVICE CONTROLLER
CF_RESET
HARD ID
DEBUG LED
IC1103
AND
GATE
US2_RST
NET_RST
CN1302
IC1102
BUFF
X1101
33MHz
OSC
UART2
TOOL
UART1
UART_B
PCI BUS
IC2302
CN2301
IC2303
D5V
CURRENT LIMIT
USB
TYPE A
USB HOST
CONTROLLER
IC2404
CN2401
A3.3V
CURRENT LIMIT
CF
SOCKET
IC2402
USB
USB
CF I/F
CF_RESET
X2301
48MHz OSC
IC2504
X2501
25MHz
CLK OUT
25MHz
XTAL
IEEE 802.3x
CH4
CN2501
MII I/F
CH2
IEEE 802.3x
TRANSCEIVER
ETHERNET
ACTION LED
SPEED LED
RESET
US2 BOARD

Section 5
SNMP

5-1. SNMP

BKM-FW50 installs SNMP (Simple Network Management Protocol). SNMP is a standard protocol for network management that was standardized in IETF (Internet Engineer Task Force).
By using SNMP, the management information of equipment connected to a network can be gotten via a network. The information of multiple equipment gotten using SNMP can also be unitarily managed by using SNMP management software.
The equipment corresponding to SNMP has a “management information database” called MIB (Management Information Base) in the inside of equipment. In SNMP, the bidirectional communication of data contained in MIB is realized between a “management system” and “management object system” that exist in a network.
In MIB, there is the standard MIB prescribed by RFC. Especially, MIB-2 (formal name: MIB-II) is its representative MIB. MIB-2 was established to manage a network. MIB-2 is installed in much network equipment such as a PC, router, and switch as a standard feature. BKM-FW50 installs this MIB-2.
Monitoring and monitored sides exist when equipment is monitored via a network using SNMP. The monitoring side is called an “SNMP manager”. It is mainly constituted by the software of PC. For the monitored side, a module called an “SNMP agent” is installed. SNMP-compatible equipment transmits MIB information to an SNMP manager via this SNMP agent. BKM-FW50 installs this SNMP agent. BKM-FW50 can realize the communication with a general-purpose SNMP manager using this SNMP agent. Basically, an SNMP agent replies only when an inquiry is sent from an SNMP manager.
The SNMP manager periodically inquires the equipment, which it manages, about MIB information. This way to get information is called “polling”. In polling, equipment replies using a response command when an SNMP manger sends a request command to equipment. By polling, therefore, equipment can be monitored without applying a high load to the equipment.
On the other hand, notification can also be done from the equipment side to an SNMP manager. This notification is called a “trap”. Using this trap, when a serious trouble occurred in equipment, it can be notified to the SNMP manager in a short time.
BKM-FW50 is compatible with the two polling and trap protocols described above. Equipment can be efficiently monitored using these protocols.

5-2. Specifications of SNMP Installation

The specifications of the SNMP agent installed in BKM-FW50 are shown in the table below.
- SNMP version: SNMPv1
- MIB definition: SMIv2
- Support PDU: GetRequesat
  SetRequest
  GetNextRequest
  Trap
- Standard MIB to be installed

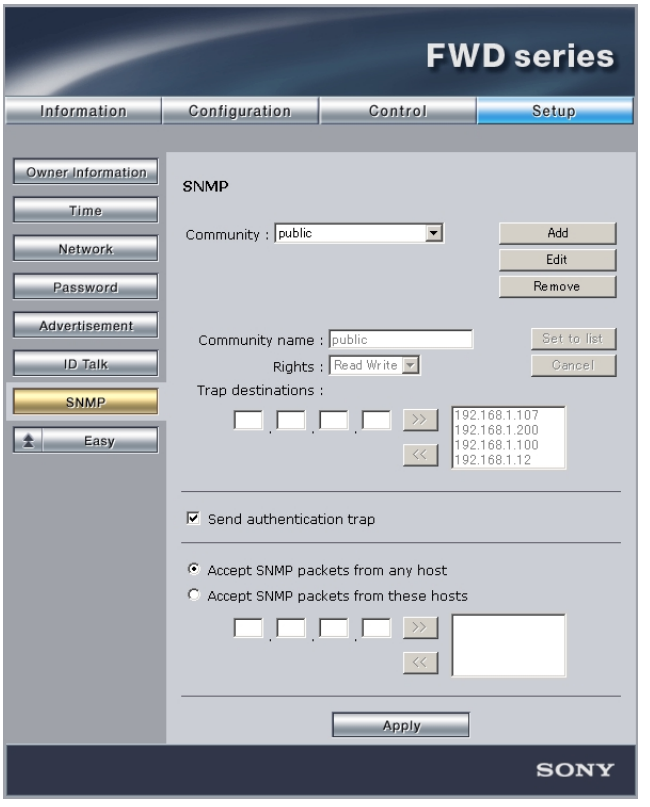
5-3. Installation

The setting below is required to use the SNMP function of BKM-FW50. (Set according to your network environment and SNMP management environment.)
- Community and its Community property
- Authentication trap
- Host restriction

The Web server function of BKM-FW50 is used for setting. Refer to the Operation Manual of BKM-FW50 for the operation of the Web server.
The contents of each item and the setting of SNMP are fully described in this specification.

5-4. Operation of SNMP Setting Window

Open the Web page of the Information Display in which BKM-FW50 is inserted and press the SNMP button in the Advanced setting item on the Setup page (where an administrator's password is necessary). The SNMP setting window shown on the next page is displayed.
This section describes the procedure and contents for setting of SNMP.



SNMP Setting window (on Web Page)

5-4-1. Community

A Community name is used as the password for SNMP access. The request received from an SNMP manager is accepted when the Community name contained in the request coincides with the Community name set in Information Display. The request is rejected when the former does not coincide with the latter.

In Information Display, a maximum of three Communities can be set.
There are "Rights" and "Trap destinations" items in the property of Community. The property can be set for each set Community.

Note

When multiple Communities are set, all set Communities are validated.

1. Rights

The rights that can be set are as follows:

Read Only: An SNMP manager can reference MIB information using this Community name.
Read Write: This Community must be set when a write request is sent from an SNMP manager.
Other: Do not set this option because it is used for the function extension in future.

2. Trap destinations

When Trap destinations are set, during trap occurrence, a trap is notified to the equipment set as destinations using the Community name set as Trap destinations.
Up to four Trap destinations can be set to one Community.
Trap destinations are not set in default.

Note

This product can be set on only the Web screen because it does not install the automatic setting function of Trap destinations.

3. Setting procedure of Community

Community can be added, edited, and removed.
The addition, editing, and removal procedures of Community are described below.

Addition of Community

1. Press the Add button.
   The "Community name", "Rights", and "Trap destinations" text boxes, or Set to List and Cancel buttons below are validated.
2. Specify the Community name you want to add.
3. Set the Rights of Community and the Trap destinations you want to add.
   When you want to save the setting, press the Set to List button and then press the Apply button at the bottom of the window.

   Notes
   - Press the Cancel button when you want to discard the setting during setting.
   - When you want to save setting, be sure to press the Set to List button and then press the Apply button.

Editing of Community

1. Select the Community, you want to edit, from a drop-down list.
2. Press the Edit button.
   The "Community name", "Rights", and "Trap destinations" text boxes, or Set To List and Cancel buttons below are validated.
   Edit the Community name when you want to edit a Community name.
3. Set the Rights of Community and the Trap destinations you want to edit.

   Notes
   - Press the Cancel button when you want to discard the setting during setting.
   - When you want to save the setting, press the Set to List button and then press the Apply button at the bottom of the window.

Removal of Community

1. Select the Community, you want to remove, from a drop-down list.
2. Press the Remove button and then press the Apply button at the bottom of the window.

   Note

   Be sure to press the Remove button and then press the Apply button.

5-4-2. Authentication Trap

An authentication trap is the trap for making it detect by an SNMP manager that an illegal access was gained to Information Display using an SNMP protocol.

- The authentication trap is validated when this check box is selected. A trap is transmitted when an illegal access is gained.
- The authentication trap is invalidated when this check box is not selected. A trap is not transmitted even if an illegal access is gained.

Note

Be sure to press the Apply button when you edited setting.

5-4-3. IP Restriction of Host

It is possible to put restrictions on the IP address of an SNMP manager, as one of the security countermeasures, which communicates with Information Display using an SNMP protocol.

- IP address restriction is invalidated when you select "Accept packets from any host".
- Only the SNMP access from an SNMP manager that has the set IP address is accepted when you select "Accept packets from those hosts". The SNMP access from an IP address that has not been set is rejected.

Notes

- Up to four IP restrictions can be set.
- Be sure to press the Apply button when you edited setting.

5-5. MIB to Be Installed

BKM-FW50 that can be used for Information Display installs MIB-2.
MIB-2 is the most representative standard MIB. It is installed in various network products.
The statistical information on the amount of network traffic or the number of transmitted and received packets is defined, and the change or transition can be monitored by polling the information periodically.
Additionally, the management items to be installed can be defined using a TCP/IP device so as to get the information effective for the monitoring of the network communication state.
Refer to RFC1213 for the detailed definition of MIB-II.

5-6. Information to Be Notified on Trap

In software version 2.0 or later, the Information Display into which the software is inserted mounts a function that transmits error information to BKM-FW50, so an error trap is installed. Authentication Trap is also installed.

5-7. ID Talk

ID Talk is set as described below. ID Talk is a protocol for operating the function of the display equipment, in which this unit was installed, or the function of this unit via a network.

5-7-1. Default Setting

Item	Description
Transport	TCP
Port number	53484 (Factory setting)
TCP connection time-out	30 seconds (Factory setting)

5-7-2. Setting Items

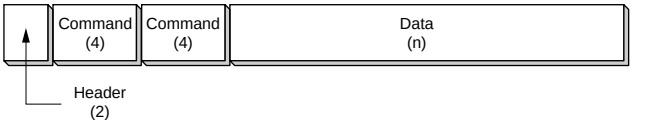
The items that can be set to ID Talk are shown in the table below.

Item	Description
Start ID Talk Service	Select the check box when using ID Talk. Clear the check box when using no ID Talk. (The default setting is OFF.)
Port No.	Changes the port number. A port number must be able to be changed on the assumption that port number 53484 cannot be used because it has been already used for another purpose.
Timeout	Specify the timeout time of connection. Connection is automatically disconnected when communication is not done for the specified time.
IP address of client (Host Address)	Executes only the request from the specified IP address. ID Talk does not have the security function such as user authentication. During installation, safety can be improved by setting this setting item. Multiple host addresses can be set.
Community	Changes the community of a header.

Set the items described above properly on the SETUP → ID Talk page of the Web page when using ID Talk.

5-7-3. Packet Structure

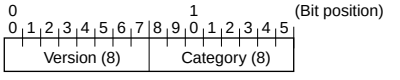
The packet structure of ID Talk is described below.



Packet structure

1. Header

The header is constituted by two bytes consisting of a version (8 bits) and category (8 bits).



Header structure

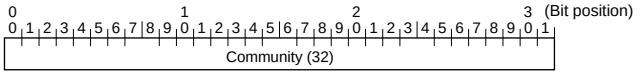
Version

Indicates the version number of an ID Talk protocol.
This version is fixed to 02h (version 2).

Category
Contains the category number of display equipment to be controlled. A category number is confirmed on the display equipment side. A request is ignored when a different category number is contained.

Code	Category
10h	Information Display (FWD series)

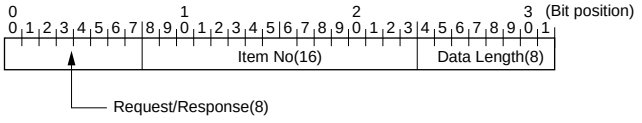
2. Community
A request is executed when community coincides with the community set in display equipment. Community consists of four (upper- or lower-case) alphanumeric characters. For BKM-FW50, “SONY” is a factory-setting value. The set character can be changed on the Web page.



Community packet

Note
Community necessarily consists of four alphanumeric characters.

3. Command
The format of a request packet and response packet is described below.



Command packet

4. Request
The format when sending a request from a host to display equipment is described below.

Community
This is the same alphanumeric character as the community set in display equipment that sends a request.
R**equest**
This is a request for display equipment.
Item No.
This is the item number to be treated for request.
Data Length
This is the length of data incident to a request. The maximum length is 128 bytes. The length of data is “0” when no data exists.
Data
This is data incident to a request.

5. Response
The format when display equipment returns a response to the request from a host is described below.

Community
This contains the same alphanumeric character as a request. For a short header and short community, this is embedded with 00h.
Response
This contains the result of a request.
Item No.
This contains the same value as a request.
Data Length
This is the length of data incident to a response. The maximum length is 128 bytes. The length of data is “0” when no data exists.
Data
This is data incident to a response.

5-7-4. Requests and Responses

Requests and responses are described below.

1. Requests
Requests are only a GET request that gets the display information or state and a SET request that changes the setting of display equipment.

Request	Contents
SET (00h)	Writes data in the register of display equipment.
GET (01h)	Gets the installation information, equipment state, or setting values.

SET command
Communication with the main microcomputer of display equipment can be done via a network by using the protocol dedicated to FWD series as well as an ID Talk protocol. Use a SET command in this case. (Also, use a SET command when receiving information from the main unit of display equipment.)

2. Responses
A response returns the result of execution to the request from a host.

Response	Contents
NG (00h)	Indicates that a request is invalid or could not be executed.
OK (01h)	Indicates that a request could be executed normally.

3. SET request

The SET request sets a new value to the specified item. A request and its response are described in details below.

Request

Request	Item No.	Data Length	Data
00h	Item No.	n	Set Data(n byte)

SET request

Response

OK(01h)	Item No.	n	Get Data(n byte)

Response to SET request

4. GET request

The GET request gets the value of the specified item. A request and its response are described in details below.

Request

Request	Item No.	Data Length
01h	Item No.	0

GET request

Response

OK(01h)	Item No.	n	Get Data(n byte)

Response to GET request

5. ERROR response

An NG message is returned as a response when an error occurs in the contents of a request or the result of execution.

NG(00h)	Item No.	2	Error Code(16)

ERROR response

5-7-5. Items

Category	Contents	SET	GET
80**h	Gets the information of equipment. (FWD series)	○	○
9**h	Gets the network setting information.	–	○
F100h	FWD series dedicated protocol	○	–
F2**h	BKM-FW50 dedicated protocol	○	–

1. 80**h

This item gets the information of the connected display equipment.

Lower byte	Contents	SET	GET
00h	Category Code	–	○
01h	Model Name	–	○
02h	Serial Number	–	○
03h	Installation Place	○	○

0x8000 Category code

1 byte

0x8001 Model name

12 alphanumeric characters

For under 12 alphanumeric characters, the remaining section is set as 00h.

0x8002 Serial number

4 bytes

0x8003 Installation place

24 alphanumeric characters

For under 24 alphanumeric characters, the remaining section is set as 00h.

2. 90**h

This item gets the network setting information.

Lower byte	Contents	SET	GET
00h	MAC Address	–	○
01h	IP Address	–	○
02h	Subnet Mask	–	○
03h	Default Gateway	–	○
04h	DHCP	–	○

0x9000 Max Address

6 bytes

0x9001 IP Address

4 bytes

0x9002 Subnet Mask

4 bytes

0x9003 Default Gateway

4 bytes

0x9004 DHCP

1 byte

DHCP invalid data value: 0

DHCP valid data value: 1

3. F100h

FWD series dedicated protocol packets can be transmitted to the main microcomputer of Information Display as ID Talk data according to the FWD series dedicated protocol. The response of an FWD series dedicated protocol is returned as the data of ID Talk response packets.
Refer to the dedicated protocol manual for details on the FWD series dedicated protocol.

4. F2∗∗h

Lower byte	Contents	SET	GET
00h	Command to be sent with the semaphore gotten	○	–
01h	Command sent without getting semaphore and semaphore get/cancel command	○	–

BKM-FW50 dedicated protocol packets can be transmitted to BKM-FW50 as ID Talk data according to the BKM-FW50 setting sequence.
Refer to Section 5-8 for details on the BKM-FW50 setting sequence and BKM-FW50 dedicated protocol.

5-7-6. Error Codes

An error code list and its details are shown in the table below.

Category	Error	Error code
Item Error (01∗∗h)	Invalid Item	01h
	Invalid Item Request	02h
	Invalid Length	03h
	Invalid Data	04h
	Short Data	11h
	Not Applicable Item	80h
Community Error (02∗∗h)	Different Community	01h
Request Error(10∗∗h)	Invalid Version	01h
	Invalid Category	02h
	Invalid Request	03h
	Short Header	11h
	Short Community	12h
	Short Command	13h
Network Error (20∗∗h)	Timeout	01h
Comm Error (F0∗∗h)	Timeout	01h
	Check Sum Error	10h
	Framing Error	20h
	Parity Error	30h
	Over Run Error	40h
	Other Comm Error	50h
	Unknown Response	F0h
NVRAM Error (F1∗∗h)	Read Error	10h
	Write Error	20h

1. Item errors

An item error occurs when the Item No. or Data of a request is invalid. The conditions under which each error occurs are described below.

Invalid Item
When Item No. that is not supported is specified
Invalid Item Request
When Item No. is supported, but Request that is not supported is requested
Invalid Length
When the Data Length of the specified Item No. is too long
Invalid Data
When the Data of the specified Item No. differs in the setting range
Short Data
When the length of data differs from the value specified using Data Length
Not Applicable Item
When an item that is not valid at present is specified

2. Community error

This error occurs when community differs.

3. Request errors

These errors occur when a header or command is invalid. The conditions under which each error occurs are described below.

Invalid Version
When the version of a header is other than 2
Invalid Category
When a category differs
Invalid Request
When a request that is not supported is specified
Short Header
When the received data is 1 byte
Short Community
When the received data is 2 to 5 bytes
Short Command
When the received data is 6 to 9 bytes

4. Network error

This error occurs in TCP/IP. The conditions under which an error occurs are described below.

Timeout
When communication was interrupted halfway

5. Comm error

This is an error that occurs during communication with the main control microcomputer of display equipment.

Timeout
When the received data is not sent after data transmission
Check Sum Error
When a check sum error occurs in the main control microcomputer
Framing Error
When a framing error occurs
Parity Error
When a parity error occurs
Over Run Error
When an overrun error occurs
Other Comm Error
When other errors occur
Unknown Response
When data that cannot be processed is received

6. NVRAM error

Read Error
When the read operation from NVRAM fails
Write Error
When the write operation to NVRAM fails

5-8. BKM-FW50 Dedicated Protocol

5-8-1. Packet Format

Command transmission to BKM-FW50

Enquiry

No.	Item	Value	Remarks
1	Header	0x83	The enquiry of an FWD series protocol is used.
2	Category	0xDX	Command type 1 (Refer to the category list.)
3	Function	0xXX	Command type 2
4	Data1	0xXX	–
5	Data2	0xFF	Fixed
6	CheckSum∗	0xXX	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 5 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Response from BKM-FW50 to command

Enquiry answer (In case of abnormality)

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x03	0x03: Command Canceled
3	CheckSum∗	0x73	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 2 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Error answer (In case of abnormality)

No.	Item	Remarks
1	Header	0xE0: Answer
2	Answer∗1	0x00: No Function Error
		0x01: Check Sum Error
		0x02: Data Length Error
3	CheckSum∗2	0xXX

∗1 0x00: No Function Error — A packet header, category, or function code is not contained in this protocol.
0x01: Check Sum Error — The checksum value of the received packet is incorrect.
0x02: Data Length Error — The data size of the received packet is incorrect.
∗2 Checksum: If the value of a sum total of 1 to 2 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Enquiry answer (In case of normality)

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x00	0x00: Command Completed
3	Length	0x03	Data size
4	Data1	0x20	Fixed
5	Data2	0xXX	Command type (Refer to the normal command list and data command list.)
6	CheckSum∗	0xXX	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 5 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Data replay

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x00	0x00: Command Completed
3	Length	0xXX	Data size
4	Data1	0x10	Fixed
5	Data2	0xXX	Data number
6	Data3	0xXX	First data
:	:	:	:
X	Data(X−4)	0xXX	X−6th data value
X+1	CheckSum∗	0xXX	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to X exceeds 255 (1 byte), the data of 1 lower byte is effective.

Notification of data termination

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x00	0x00: Command Completed
3	Length	0x03	Data size (Fixed)
4	Data1	0x20	Fixed
5	Data2	0xXX	Command type (Refer to the normal command list and data command list.)
6	CheckSum∗	0xXX	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 5 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Data transmission to BKM-FW50

Control

No.	Item	Value	Remarks
1	Header	0x8C	The control of an LX1 protocol is used.
2	Category	0xDX	Command type 1 (Refer to the category list.)
3	Function	0xXX	Command type 2
4	Length	0xXX	Data size 0xff (maximum) (Size of No. 5 to No. X + 1)
5	Data1	0xXX	Data number (from 0)
6	Data2	0xXX	First data value
:	:	0xXX	:
X	Data(X−4)	0xXX	X−5th data value
X+1	CheckSum∗	0xXX	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to X exceeds 255 (1 byte), the data of 1 lower byte is effective.

Response from BKM-FW50 to data transmission

Control answer (In case of abnormality)

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x03	0x03: Command Canceled
3	CheckSum∗	0x73	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 2 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Control answer (In case of normality)

No.	Item	Value	Remarks
1	Header	0x70	The answer of an FWD series protocol is used.
2	Answer	0x00	0x00: Command Completed
3	CheckSum∗	0x70	Checksum for detection of data destruction

∗ Checksum: If the value of a sum total of 1 to 2 exceeds 255 (1 byte), the data of 1 lower byte is effective.

Category list

- All commands and data items shall be classified as shown in the table below.
- Before adding a new category, examine carefully whether it is data which should be put in a function.

Outline	Detailed contents	Data
Normal command transmission	Used during normal command transmission. ∗ A data type is specified using a function.	0xD1
Normal command response (Abnormal)	Used when abnormality occurred in the response during command transmission. ∗ A data type is specified using a function. ∗ A error type is specified using a Cmd2.	0xD2
Data transmission	Used during data transmission. ∗ A data type is specified using a function. ∗ A data number is specified using a Cmd2.	0xD3

5-8-2. ID Talk for Player Command List

Symbols in table

(∗1): ID Talk Enquiry
(∗2): FW50 Answer
(∗3): ID Talk Control
(∗A): Refer to the description below.
(∗a), (∗b), (∗c): Refer to Section 5-8-3.

- An ID Talk for Player command is sent in the sequence shown in the table.
- Send an “ID Talk Start” command first when using ID Talk for Player. Send an “ID Talk Stop” command lastly when terminating ID Talk for Player. However, it is not necessary to assign “ID Talk Start/ Stop” before and after each command when sending other commands.
- A (∗A) command that requires the getting of semaphore must transmit a Get semaphore command at the beginning of a command sequence. Moreover, a Release semaphore command must be transmitted at the end of a sequence.
- A command that does not require the getting of semaphore cannot be transmitted with the semaphore not released (the semaphore gotten) after semaphore is gotten using other commands. (The result of command transmission appears as an error, and semaphore is released if the semaphore getting state is entered.)

Item	Command	Contents	Remarks	Semaphore getting (∗1)	(∗2)	① (∗1)	② (∗2)	③ (∗3)	④ (∗1)	⑤ (∗2)	⑥ (∗1)	⑦ (∗2)	Semaphore release (∗1)	(∗2)
Strea-ming Play	Play (∗A)	Play start	The set server address and global setting information are used to start play.	CN-150	CN-2	CN-65 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Stop (∗A)	Play stop	–	CN-150	CN-2	CN-66 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Set Server Address Setting	Server address setting	• Must be called before Play. • Play is started using the address of the previous setting data when not called. • The data to be set shall be the same as the data used in the operation from a Web site.	–	–	CN-91 (∗c)	CN-2 (∗c)	CD-66 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get Server Address Setting	Getting of server address setting	Command used when getting the setting of a player using ID Talk	–	–	CN-80 (∗b)	CN-2 (∗b)	–	CD-4 (∗b)	CD-24 (∗b)	CD-4 (∗b)	CD-44 (∗b)	–	–
Local Play	Play (∗A)	Play start	The set local address and global setting information are used to start play.	CN-150	CN-2	CN-67 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Stop (∗A)	Play stop	–	CN-150	CN-2	CN-68 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Set Local Address Setting	Local address setting	• Must be called before Play. • Play is started using the address of the previous setting data when not called. • The data to be set shall be the same as the data used in the operation from a Web site.	–	–	CN-95 (∗c)	CN-2 (∗c)	CD-70 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get Local Address Setting	Getting of local address setting	Command used when getting the setting of a player using ID Talk	–	–	CN-84 (∗b)	CN-2 (∗b)	–	CD-5 (∗b)	CD-25 (∗b)	CD-5 (∗b)	CD-45 (∗b)	–	–
Store Local	Store (∗A)	Download start	–	CN-150	CN-2	CN-69 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Store Cancel (∗A)	Download stop	–	CN-150	CN-2	CN-70 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2

Item	Command	Contents	Remarks	Semaphore getting (∗1)	Semaphore getting (∗2)	① (∗1)	② (∗2)	③ (∗3)	④ (∗1)	⑤ (∗2)	⑥ (∗1)	⑦ (∗2)	Semaphore release (∗1)	Semaphore release (∗2)
Store Local	Set Server Address Setting	Server address setting	• Must be called before Store. • Download is started using the address of the previous setting data when not called. • The data to be set shall be the same as the data used in the operation from a Web site.	–	–	CN-93 (∗c)	CN-2 (∗c)	CD-68 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get Server Address Setting	Getting of server address setting	Command used when getting the setting of Store using ID Talk	–	–	CN-82 (∗b)	CN-2 (∗b)	–	CD-8 (∗b)	CD-28 (∗b)	CD-8 (∗b)	CD-48 (∗b)	–	–
	Set Local Address Setting	Local address setting	• Must be called before Store. • Download is started using the address of the previous setting data when not called. • The data to be set shall be the same as the data used in the operation from a Web site.	–	–	CN-94 (∗c)	CN-2 (∗c)	CD-69 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get Local Address Setting	Getting of local address setting	Command used when getting the setting of Store using ID Talk	–	–	CN-83 (∗b)	CN-2 (∗b)	–	CD-9 (∗b)	CD-29 (∗b)	CD-9 (∗b)	CD-49 (∗b)	–	–
	Set Auto Store Setting	Automatic download setting	• The setting item for a new schedule download function is transmitted. • Setting is saved on the BKM-FW32 side.	–	–	CN-92 (∗c)	CN-2 (∗c)	CD-67 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get Auto Store Setting	Getting of automatic download setting	Command used when getting the setting for a schedule download function using ID Talk	–	–	CN-81 (∗b)	CN-2 (∗b)	–	CD-10 (∗b)	CD-30 (∗b)	CD-10 (∗b)	CD-50 (∗b)	–	–
	Set Delete Address (∗A)	Deletion address setting	The address to be deleted is transmitted.	CN-150	CN-2	CN-100 (∗c)	CN-2 (∗c)	CD-75 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	CN-151	CN-2
	Delete (∗A)	Deletion	Deletion is done.	CN-150	CN-2	CN-74 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Set Make Folder Address (∗A)	Setting of folder creation address	The address in which a folder is created is transmitted.	CN-150	CN-2	CN-101 (∗c)	CN-2 (∗c)	CD-76 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	CN-151	CN-2
	Make Folder (∗A)	Folder creation	A folder is created.	CN-150	CN-2	CN-75 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2

Item	Command	Contents	Remarks	Semaphore getting (∗1)	Semaphore getting (∗2)	① (∗1)	② (∗2)	③ (∗3)	④ (∗1)	⑤ (∗2)	⑥ (∗1)	⑦ (∗2)	Semaphore release (∗1)	Semaphore release (∗2)
Player Setting	Set Player Setting	Transmission of setting information	The same contents (not including a BGM file) as for the current setting page are set.	–	–	CN-97	CN-2	CD-72	–	CD-80	CD-90	CN-2	–	–
	Get Player Setting	Getting of setting information	Command used when getting the same contents (not including a BGM file) as for the current setting page using ID Talk	–	–	CN-85 (∗b)	CN-2 (∗b)	–	CD-3 (∗b)	CD-23 (∗b)	CD-3 (∗b)	CD-43 (∗b)	–	–
	Set BGM Setting	Transmission of BGM setting information	The address of a BGM file is set.	–	–	CN-98 (∗c)	CN-2 (∗c)	CD-73 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Get BGM Setting	Getting of BGM setting information	Command used when getting the address setting of a BGM file using ID Talk	–	–	CN-86 (∗b)	CN-2 (∗b)	–	CD-6 (∗b)	CD-26 (∗b)	CD-6 (∗b)	CD-46 (∗b)	–	–
Misc	Get Status (∗A)	Gets the current status of a player.	The status is as follows: ・ During steaming play ・ During local play ・ During downloading ∗ The contents of download progress are also transmitted together. ・ Error ∗ During play, the error number that occurred during downloading is returned.	CN-150	CN-2	CN-89 (∗b)	CN-2 (∗b)	–	CD-7 (∗b)	CD-27 (∗b)	CD-7 (∗b)	CD-47 (∗b)	CN-151	CN-2
	Set File list Address (∗A)	Sets the original address in which a file list is gotten.	The folder of the file list (stream or local) to be gotten is specified. Must be necessarily called before Get File List.	CN-150	CN-2	CN-99 (∗c)	CN-2 (∗c)	CD-74 (∗c)	–	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	CN-151	CN-2

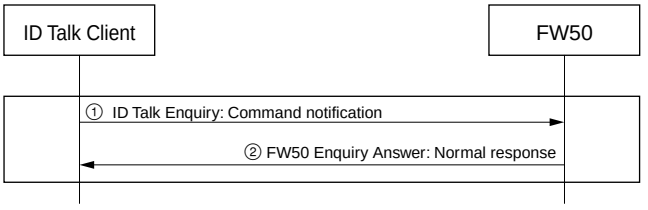
Item	Command	Contents	Remarks	Semaphore getting (∗1)	Semaphore getting (∗2)	① (∗1)	② (∗2)	③ (∗3)	④ (∗1)	⑤ (∗2)	⑥ (∗1)	⑦ (∗2)	Semaphore release (∗1)	Semaphore release (∗2)
Misc	Get File list (∗A)	Gets a file list.	The ten file lists below the folder specified using Set File List Address are sent back. ∗ CN-8 is sent back when BKM-FW50 is getting a list (has not gotten a file list). When CN-8 is returned, the ID Talk client does not transmit subsequent CD-13.	CN-150	CN-2	CN-90 (∗b)	CN-2 or CN-8 (∗b)	–	CD-13 (∗b)	CD-33 (∗b)	CD-13 (∗b)	CD-53 (∗b)	CN-151	CN-2
	Get Semaphore	Secures the communication path with BKM-FW50.	Used only between ID Talk client and BKM-FW32. ・ This command is not transmitted to BKM-FW50.	–	–	CN-150 (∗a)	CN-2 (∗a)	–	–	–	–	–	–	–
	Release Semaphore	Releases the communication path with BKM-FW50.	Used only between ID Talk client and BKM-FW32. ・ This command is not transmitted to BKM-FW50.	–	–	CN-151 (∗a)	CN-2 (∗a)	–	–	–	–	–	–	–
	ID talk Start (∗A)	Starts an ID Talk for player function.	After this command is accepted, the HTTP operation is invalidated on the screen of BKM-FW50.	CN-150	CN-2	CN-63 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	ID talk Stop (∗A)	Terminates an ID Talk for player function.	After this command is accepted, the HTTP operation is validated on the screen of BKM-FW50.	CN-150	CN-2	CN-64 (∗a)	CN-2 (∗a)	–	–	–	–	–	CN-151	CN-2
	Get Error History	Gets the thirty error histories (maximum) of a player.	–	–	–	CN-88 (∗b)	CN-2 (∗b)	–	CD-12 (∗b)	CD-32 (∗b)	CD-12 (∗b)	CD-52 (∗b)	–	–
	Set Timeout	Sets the non-communication timeout value of ID Talk connection.	–	–	–	CN-102 (∗c)	CN-2 (∗c)	CD-77	– (∗c)	CD-80 (∗c)	CD-90 (∗c)	CN-2 (∗c)	–	–
	Error Clear	Clears thirty error statuses (maximum) that BKM-FW50 maintains.	–	–	–	CN-73 (∗a)	CN-2 (∗a)	–	–	–	–	–	–	–

5-8-3. ID Talk for Player Sequence List

Steps ① to ⑦ in each sequence are the numbers in an ID Talk command sheet (except semaphore getting and release). For ID Talk command sheet, refer to Section 5-8-2.

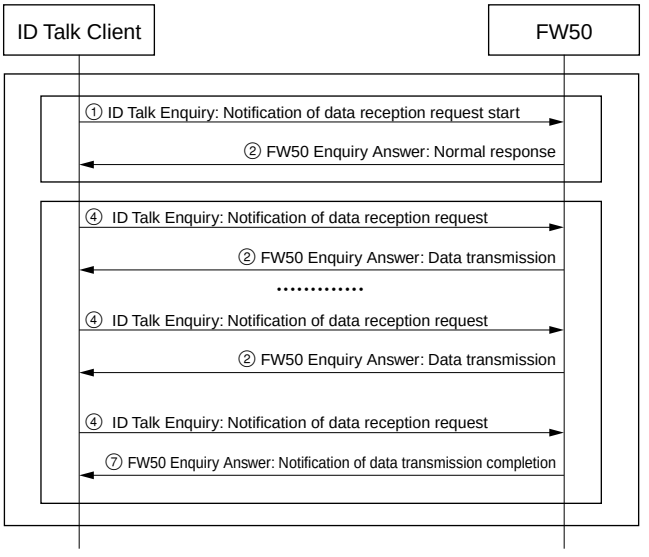
1. Normal command: Command communication from ID Talk client to BKM-FW50

- (⁎a) command in ID Talk command sheet



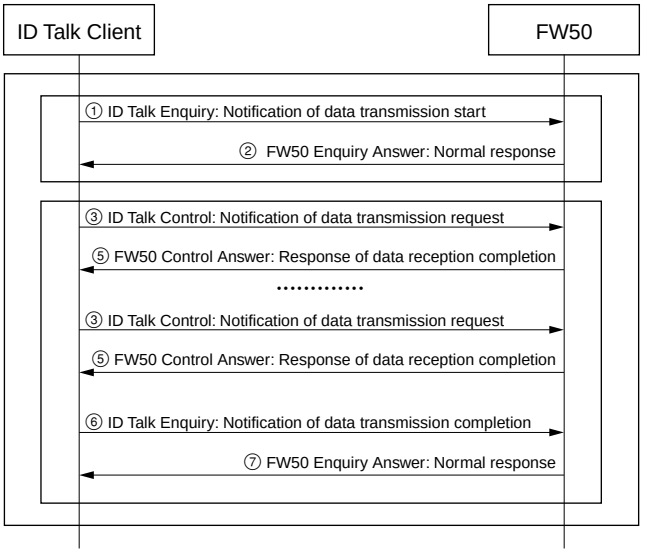
2. Data reception: Data reception from ID Talk client to BKM-FW50

- (⁎b) command in ID Talk command sheet
- Commands ④ and ⑥ are the same, but they are separated to discriminate the sequence easily.


ID Talk Client
FW50
① ID Talk Enquiry: Notification of data reception request start
② FW50 Enquiry Answer: Normal response
④ ID Talk Enquiry: Notification of data reception request
② FW50 Enquiry Answer: Data transmission
.....
④ ID Talk Enquiry: Notification of data reception request
② FW50 Enquiry Answer: Data transmission
④ ID Talk Enquiry: Notification of data reception request
⑦ FW50 Enquiry Answer: Notification of data transmission completion

3. Data transmission: Data transmission from ID Talk client to BKM-FW50

- (⁎c) command in ID Talk command sheet
- Step ⑤ (CD-80) in the sequence is a control answer.


ID Talk Client
FW50
① ID Talk Enquiry: Notification of data transmission start
② FW50 Enquiry Answer: Normal response
③ ID Talk Control: Notification of data transmission request
⑤ FW50 Control Answer: Response of data reception completion
.....
③ ID Talk Control: Notification of data transmission request
⑤ FW50 Control Answer: Response of data reception completion
⑥ ID Talk Enquiry: Notification of data transmission completion
⑦ FW50 Enquiry Answer: Normal response

5-8-4. Command Detail Data Used for Command Transmission

Response to the command from ID Talk (Used in common in the whole sequence.) ••• ② and ⑦

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Check Sum
CN-2	Normal response from BKM-FW50	Response from ID Talk client to each command (Normal)	0x70	0x00	0x03	0x20	0xFF	0x71

Response to the command from ID Talk (Used only during getting of a file list.)••• ②

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Check Sum
CN-8	Response during getting of file list from BKM-FW50	Response returned when BKM-FW50 is getting a file list (has not gotten a file list) during reception of the file list get command (CN-90) from an ID Talk client	0x70	0x00	0x03	0x20	0x8D	0xFC

Normal commands from ID Talk to BKM-FW50••• ①

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CN-63	ID Talk start notification	Notifies the start of ID-Start.	0x83	0xD1	0x40	0xFF	0xFF	0x92
CN-64	ID Talk stop notification	Notifies the end of ID-Start.	0x83	0xD1	0x41	0xFF	0xFF	0x93
CN-65	Notification of Streaming Play start request	Notifies the Streaming Play start request of ID Talk.	0x83	0xD1	0x42	0xFF	0xFF	0x94
CN-66	Notification of Streaming Play stop request	Notifies the Streaming Play stop request of ID Talk.	0x83	0xD1	0x43	0xFF	0xFF	0x95
CN-67	Notification of Local Play start request	Notifies the Local Play start request of ID Talk.	0x83	0xD1	0x44	0xFF	0xFF	0x96
CN-68	Notification of Local Play stop request	Notifies the Local Play stop request of ID Talk.	0x83	0xD1	0x45	0xFF	0xFF	0x97
CN-69	Notification of Store Local download start request	Notifies the Store Local download start request of ID Talk.	0x83	0xD1	0x46	0xFF	0xFF	0x98
CN-70	Notification of Store Local download stop request	Notifies the Store Local download stop request of ID Talk.	0x83	0xD1	0x47	0xFF	0xFF	0x99
CN-73	Notification of Error Clear request	Clears the BKM-FW50 error history of ID Talk.	0x83	0xD1	0x4A	0xFF	0xFF	0x9C
CN-74	Deletion of specified CF card address folder or file	For ID Talk, deletes the contents of the specified CF card.	0x83	0xD1	0x4B	0xFF	0xFF	0x9D
CN-75	Creation of specified CF card address folder	For ID Talk, creates a folder in a CF card.	0x83	0xD1	0x4C	0xFF	0xFF	0x9E
CN-125	Execution of Rename	Rename execution command for ID-Talk only	0x83	0xD1	0x91	0xFF	0xFF	0xXX
CN-146	Notification of List Play start request	Notifies the List Play start request of ID Talk.	0x83	0xD1	0x9F	0xFF	0xFF	0xXX
CN-147	Notification of List Play stop request	Notifies the List Play stop request of ID Talk.	0x83	0xD1	0xA0	0xFF	0xFF	0xXX
CN-150	Get semaphore	Ensures the path of communication with BKM-FW50.	0x83	0xD1	0x80	0xFF	0xFF	0xD2
CN-151	Release semaphore	Releases the path of communication with BKM-FW50.	0x83	0xD1	0x81	0xFF	0xFF	0xD3
CN-153	Notification of Clear Log request	Notifies the Clear Log request.	0x83	0xD1	0xA4	0xFF	0xFF	0xXX

Commands for starting a data getting request from ID Talk to BKM-FW50 ••• ①

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CN-80	Notification of initial information reception start request in Streaming Address	Requests the getting of data from ID Talk.	0x83	0xD1	0x50	0xFF	0xFF	0xA2
CN-81	Notification of initial information reception start request in Auto Store (5 bytes-fixed) of Store Local	Requests the getting of data from ID Talk.	0x83	0xD1	0x51	0xFF	0xFF	0xA3
CN-82	Notification of initial information reception start request in Server Address (maximum 512 bytes) of Store Local	Requests the getting of data from ID Talk.	0xD1	0x52	0xFF	0xFF	0xA4	
CN-83	Notification of initial information reception start request in Local Address (maximum 250 bytes) of Store Local	Requests the getting of data from ID Talk.	0x83	0xD1	0x53	0xFF	0xFF	0xA5
CN-84	Notification of initial information reception start request in Local Address (maximum 250 bytes) of Play Local	Requests the getting of data from ID Talk.	0x83	0xD1	0x54	0xFF	0xFF	0xA6
CN-85	Notification of initial information reception start request in Player (2 bytes-fixed) of Player Setting	Requests the getting of data from ID Talk.	0x83	0xD1	0x55	0xFF	0xFF	0xA7
CN-86	Notification of initial information reception start request in GBM (maximum 250 bytes) of Player Setting	Requests the getting of data from ID Talk.	0x83	0xD1	0x56	0xFF	0xFF	0xA8
CN-87	Notification of initial value reception start request in Timeout	Requests the getting of data from ID Talk.	0x83	0xD1	0x57	0xFF	0xFF	0xA9
CN-88	Notification of reception start request in Error History Table	Requests the getting of data from ID Talk.	0x83	0xD1	0x58	0xFF	0xFF	0xAA
CN-89	Notification of information reception start request in Status	For ID Talk, gets BKM-FW50 state information.	0x83	0xD1	0x59	0xFF	0xFF	0xAB
CN-90	Notification of information reception start request in file list	For ID Talk, gets a file list from BKM-FW50. Ten-file data is received per once.	0x83	0xD1	0x5A	∗0xXX (0x00-0x63)	0xFF	0xXX
CN-111	Getting of file list data of play list	Requests the getting of list of the play list.	0x83	0xD1	0x75	0xFF	0xFF	0xXX
CN-112	Getting of Time Table Play play table data	Requests the getting of Time TablePlay play table data ∗ List of all seven types	0x83	0xD1	0x76	0xFF	0xFF	0xXX
CN-113	Getting of data in play list	Gets the data in play list. ∗ The list of data to be gotten is set in CN-115.	0x83	0xD1	0x77	0xFF	0xFF	0xXX

(Continued)

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CN-123	Notification of transmission start of file list number in CF card	Requests the getting of file list number in CF card.	0x83	0xD1	0x88	0xFF	0xFF	0xXX
CN-134	Getting of Schedule Play day of the week setting data	Gets the Schedule Play day of the week setting data.	0x83	0xD1	0x93	0xFF	0xFF	0xXX
CN-114	Notification of transmission start of CF remaining capacity	Requests the getting of CF remaining capacity.	0x83	0xD1	0x94	0xFF	0xFF	0xXX
CN-122	Notification of transmission start of CF total capacity	Requests the getting of CF total capacity.	0x83	0xD1	0x95	0xFF	0xFF	0xXX
CN-128	Notification of CF device status transmission start	Transmits the CF device status to BKM-FW32.	0x83	0xD1	0x96	0xFF	0xFF	0xXX
CN-148	Notification of play list setting transmission start	Requests the getting of list file name set in the List Play setting window.	0x83	0xD1	0xA1	0xFF	0xFF	0xXX
CN-149	Notification of transmission start of Advanced setting	Requests the getting of the Advanced setting.	0x83	0xD1	0xA2	0xFF	0xFF	0xXX
CN-154	Notification of log address transmission start	Requests the getting of log address.	0x83	0xD1	0xA5	0xFF	0xFF	0xXX
CN-155	Notification of file system status transmission start	Requests the getting of file system status.	0x83	0xD1	0xA7	0xFF	0xFF	0xXX

∗ Data 1 indicates the getting start number (what number it is). The range of the number is 0x00 to 0x62 (maximum 1000).
Example) Data 1 = 0x04: 41st to 50th numbers are gotten.

Commands for starting the transmission of data from ID Talk to BKM-FW50 ••• ①

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CN-91	Notification of transmission start in Streaming Server Address	Notifies the transmission start of Streaming Server Address data from ID Talk.	0x83	0xD1	0x61	0xFF	0xFF	0xXX
CN-92	Notification of transmission start in Auto Store of Store Local	Notifies the transmission start of Auto Store data from ID Talk.	0x83	0xD1	0x62	0xFF	0xFF	0xXX
CN-93	Notification of transmission start in Server Address of Store Local	Notifies the transmission start of download source server address data in Store Local from ID Talk.	0x83	0xD1	0x63	0xFF	0xFF	0xXX
CN-94	Notification of transmission start in Local Address of Store Local	Notifies the transmission start of download destination local address data in Store Local from ID Talk.	0x83	0xD1	0x64	0xFF	0xFF	0xXX
CN-95	Notification of transmission start in Local Play Address	Notifies the transmission start of Local Play Address data from ID Talk.	0x83	0xD1	0x65	0xFF	0xFF	0xXX
CN-97	Notification of transmission start in Player Setting	Notifies the transmission start of Player setting data from ID Talk.	0x83	0xD1	0x67	0xFF	0xFF	0xXX
CN-98	Notification of transmission start in BGM	Notifies the transmission start of BGM data from ID Talk.	0x83	0xD1	0x68	0xFF	0xFF	0xXX

(Continued)

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CN-99	Transmission start notification of address to which file list is gotten	Notifies the transmission start of address data to which the file list from ID Talk is gotten.	0x83	0xD1	0x69	0xFF	0xFF	0xXX
CN-100	Notification of deletion address transmission start in CF card	Notifies the transmission start of the CF card deletion address data from ID Talk.	0x83	0xD1	0x6A	0xFF	0xFF	0xXX
CN-101	Notification of creation folder address transmission start in CF card	Notifies the transmission start of the folder creation address data from ID Talk.	0x83	0xD1	0x6B	0xFF	0xFF	0xXX
CN-102	Notification of Timeout data transmission start on ID Talk window	Notifies the transmission start of the Timeout data from ID Talk.	0x83	0xD1	0x6C	0xFF	0xFF	0xXX
CN-116	Setting of data getting list name in play list	Specifies the play list name you want to get in ID Talk.	0x83	0xD1	0x7A	0xFF	0xFF	0xXX
CN-117	Setting of data creation list name in play list	Specifies the play list name you want to create in ID Talk.	0x83	0xD1	0x7B	0xFF	0xFF	0xXX
CN-118	Setting of Time Table Play play table data	Sets the Time Table Play play table data from ID Talk to BSP-15.	0x83	0xD1	0x7C	0xFF	0xFF	0xXX
CN-119	Starting of Time Table Play (D-24)	Notifies the transmission start of Time Table Play starting time and the present day of the week to BSP-15.	0x83	0xD1	0x7D	0xFF	0xFF	0xXX
CN-120	Notification of transmission start of address before Rename of file in CF	Notifies the transmission start of file name before Rename to BSP-15 when Rename is done from ID Talk.	0x83	0xD1	0x7E	0xFF	0xFF	0xXX
CN-121	Notification of transmission start of address after Rename of file in CF	Notifies the transmission start of file name after Rename to BSP-15 when Rename is done from ID Talk.	0x83	0xD1	0x7F	0xFF	0xFF	0xXX
CN-138	Setting of table name for getting Time Table Play play table	Specifies the play table name you want to get in ID Talk.	0x83	0xD1	0x8D	0xFF	0xFF	0xXX
CN-139	Setting of table name for setting Time Table Play play table	Specifies the play table name you want to set in ID Talk.	0x83	0xD1	0x8E	0xFF	0xFF	0xXX
CN-131	Data transmission in play list	Transmits the data in play list.	0x83	0xD1	0x8F	0xFF	0xFF	0xXX
CN-132	Transmission of Time Table Play day of the week setting data	Transmits the Time Table Play day of the week setting data.	0x83	0xD1	0x90	0xFF	0xFF	0xXX
CN-137	Transmission of Advanced setting data	Transmits the setting data of the Advanced setting.	0x83	0xD1	0x97	0xFF	0xFF	0xXX
CN-152	Transmission of play list file name setting data	Transmits the play list file name setting data.	0x83	0xD1	0xA3	0xFF	0xFF	0xXX

5-8-5. Command Detail Data Used for Data Transmission and Reception

Commands notified from ID Talk before data reception when receiving data from ID Talk to BKM-FW50 ••• ④

No.	Outline	Description	Header	Category*	Function	Data1	Data2	Check Sum*
CD-3	Player setting update data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x32	0xFF	0xFF	0x84
CD-4	Streaming Play update data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x33	0xFF	0xFF	0x85
CD-5	Local Play update data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x34	0xFF	0xFF	0x86
CD-6	BGM update data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x35	0xFF	0xFF	0x87
CD-7	Player Status data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x37	0xFF	0xFF	0x88
CD-8	Server Address update data in Store Local	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x38	0xFF	0xFF	0x89
CD-9	Local Address update data in Store Local	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x39	0xFF	0xFF	0x8A
CD-10	Auto Store information update data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x3A	0xFF	0xFF	0x8B
CD-11	Timeout data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x3B	0xFF	0xFF	0x8C
CD-12	Error History Table data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x3C	0xFF	0xFF	0x8D
CD-13	File list data	Notifies the data reception request to BKM-FW50.	0x83	0xD1	0x3D	0xFF	0xFF	0x8E
CD-82	File list data of play list	Notifies the list reception request of the play list.	0x83	0xD1	0x82	0xFF	0xFF	0xXX
CD-83	Time Table Play play table data	Notifies the reception request of the TimeTable Play play table data. ∗ List of all seven types	0x83	0xD1	0x83	0xFF	0xFF	0xXX
CD-84	Use of only data ID-Talk in play list	Notifies the data reception request in the play list. ∗ The list of data to be gotten is set in CN-115.	0x83	0xD1	0x84	0xFF	0xFF	0xXX
CD-85	CF remaining capacity data	Notifies the reception request of the CF remaining capacity.	0x83	0xD1	0x85	0xFF	0xFF	0xXX
CD-86	Time Table Play setting	Notifies the reception request of Time Table Play setting data (only day of the week and time information) set in Web.	0x83	0xD1	0x86	0xFF	0xFF	0xXX
CD-104	CF total capacity data	Notifies the reception request of the CF total capacity.	0x83	0xD1	0x8A	0xFF	0xFF	0xXX
CD-105	Number of file list	Notifies the reception request of the number of file list in the CF card.	0x83	0xD1	0x8B	0xFF	0xFF	0xXX
CD-106	List file name currently being played	Notifies the reception request of the list file name currently being played.	0x83	0xD1	0x8C	0xFF	0xFF	0xXX
CD-113	CF device information	Notifies the reception request of the CF device information.	0x83	0xD1	0x98	0xFF	0xFF	0xXX

(Continued)

No.	Outline	Description	Header	Category*	Function	Data1	Data2	Check Sum*
CD-114	SNMP Trap information	Notifies the reception request of the SNMP Trap information.	0x83	0xD1	0x99	0xFF	0xFF	0xXX
CD-116	Schedule Play day of the week setting data	Notifies the reception request of the Time Table Play day of the week setting data.	0x83	0xD1	0x9A	0xFF	0xFF	0xXX
CD-129	Advanced setting update data	Notifies the reception request of the Advanced setting update data.	0x83	0xD1	0x9B	0xFF	0xFF	0xXX
CD-132	Power ON/Power OFF setting data	Notifies the reception request of the Power ON/Power OFF setting data.	0x83	0xD1	0x9C	0xFF	0xFF	0xXX
CD-136	BGM file name currently being played	Notifies the reception request of the BGM file name currently being played.	0x83	0xD1	0x9D	0xFF	0xFF	0xXX
CD-140	Play list file name	Notifies the reception request of the play list file name.	0x83	0xD1	0x9E	0xFF	0xFF	0xF0
CD-143	Log file address	Notifies the reception request of the log file address.	0x83	0xD1	0xA6	0xFF	0xFF	0xF0
CD-146	File system status	Notifies the reception request of the file system status.	0x83	0xD1	0xA8	0xFF	0xFF	0xF0

∗ For the retransmission request during occurrence of an error, a category is set to 0xD2, and the checksum is incremented by one.

Data sent from BKM-FW50 when receiving data from ID Talk to BKM-FW50 ••• ⑤

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-23	Player setting update data	Data transmission response from BKM-FW50	0x70	0x00	0x04	0x10	0xXX	0xXX	–	0xXX The fifth byte is a data number (from 0).
CD-24	Streaming Play update data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-25	Local Play update data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-26	BGM update data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-27	Player Status data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-28	Server Address update data in Store Local	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-29	Local Address update data in Store Local	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-30	Auto Store update data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX The fifth byte is a data number (from 0).

(Continued)

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-31	Timeout data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX The fifth byte is a data number (from 0).
CD-32	Error History Table data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-33	File list data	Data transmission response from BKM-FW50	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX 128 bytes (maximum) The fifth byte is a data number (from 0).
CD-87	File list data of play list	List transmission response of the play list	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX Used in ID Talk only.
CD-88	Time Table Play play table data	Play table data transmission response of TimeTablePlay ∗ List of all seven types	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX Used in ID Talk only.
CD-89	Data in play list	Data transmission response in the play list ∗ The list of data to be gotten is set in CN-115.	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX Used in ID Talk only.
CD-103	CF remaining capacity data	CF remaining capacity transmission response	0x70	0x00	0x03	0x10	0xXX	0xXX	•••	0xXX
CD-91	Time Table Play setting (D-38)	Data transmission response of the Time Table Play setting set in Web (only day of the week and time information).	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-107	CF total capacity data	CF total capacity transmission response	0x70	0x00	0x03	0x10	0xXX	0xXX	–	–
CD-108	Number of file list	Transmission response of the number of file list in the CF card	0x70	0x00	0x03	0x10	0xXX	0xXX	–	–
CD-109	List file name currently being played	Transmission response of the list file name currently being played	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-117	CF device information	CF device information transmission	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-118	SNMP Trap response	SNMP Trap information transmission response	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-120	Schedule Play day of the week setting data	Transmission response of the Time Table Play day of the week setting data	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX

(Continued)

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-130	Advanced setting update data	Transmission response of the Advanced setting update data	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-133	Power ON/Power OFF setting	Power ON/Power OFF setting transmission response	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-137	BGM file name currently being played	Transmission response of the BGM file name currently being played	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-142	Play list file name	Play list file name transmission response	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX Play list file name set in List Play window
CD-144	Log file address	Log file address transmission response	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX
CD-147	File system status	File system status transmission response	0x70	0x00	0xXX	0x10	0xXX	0xXX	•••	0xXX

Notification of data termination sent from BKM-FW50 when receiving data from ID Talk to BKM-FW50 ••• ⑦

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Check Sum
CD-43	Player setting update data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA2	0x35
CD-44	Streaming Play update data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA3	0x36
CD-45	Local Play update data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA4	0x37
CD-46	BGM update data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA5	0x38
CD-47	Player Status data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA6	0x39
CD-48	Server Address update data in Store Local	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA7	0x3A
CD-49	Local Address update data in Store Local	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA8	0x3B
CD-50	Auto Store update data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xA9	0x3C
CD-51	Timeout data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xAA	0x3D
CD-52	Error History Table data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xAB	0x3E
CD-53	File list data	Data transmission termination response from BKM-FW50	0x70	0x00	0x03	0x20	0xAC	0x3E
CD-92	File list data of play list	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB2	0xXX

(Continued)

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Check Sum
CD-93	Time Table Play play table data	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB3	0xXX
CD-94	Data in play list	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB4	0xXX
CD-95	CF remaining capacity data	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB5	0xXX
CD-96	Time Table Play setting	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB6	0xXX
CD-110	CF total capacity data	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB7	0xXX
CD-111	Number of file list	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB8	0xXX
CD-112	List file name currently being played	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xB9	0xXX
CD-121	CF device information	CF device information getting request	0x70	0x00	0x03	0x20	0xBA	0xXX
CD-122	SNMP Trap information	SNMP Trap information getting request	0x70	0x00	0x03	0x20	0xBB	0xXX
CD-124	Schedule Play day of the week setting data	Getting request of Time Table Play day of the week setting data	0x70	0x00	0x03	0x20	0xBC	0xXX
CD-131	Advanced setting update data	Getting request of Advanced setting update data	0x70	0x00	0x03	0x20	0xBD	0xXX
CD-134	Power ON/Power OFF setting	Getting request of Power ON/Power OFF setting	0x70	0x00	0x03	0x20	0xBE	0xXX
CD-138	BGM file name currently being played	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xBF	0xXX
CD-139	Play list file name	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xC0	0x53
CD-145	Log file address	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xC1	0xXX
CD-148	File system status	Data transmission termination response from BSP-15	0x70	0x00	0x03	0x20	0xC2	0xXX

Data sent by ID Talk when transmitting data from ID Talk to BKM-FW50 ••• ③

∗ Only this data is controlled.

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-66	Server Address data in Streaming Play of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x22	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-67	Auto Store data in Store Local of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x23	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).

(Continued)

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-68	Server Address data in Store Local of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x24	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-69	Local Address data in Store Local of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x25	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-70	Local Address data in Local Play of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x26	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-72	Player data on Player Setting screen of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x28	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-73	BGM data on Player Setting screen of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x29	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-74	File list getting destination address data of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x2A	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-75	CF card deletion address data of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x2B	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-76	Folder creation address data in CF card of ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x2C	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).

(Continued)

No.	Contents	Remarks	Header	Answer	Data Size	Data1	Data2	Data3	•••	Check Sum
CD-77	Notification of timeout transmission to ID Talk	Data transmission notification from ID Talk	0x8C	0xD3	0x2D	0xXX	0xXX	0xXX	...	0xXX For retransmission during occurrence of an error, a category is set to 0xD2. The fifth byte is a data number (from 0).
CD-97	Setting of data getting list name in play list	Specifies the play list name you want to get in ID Talk.	0x8C	0xD3	0x31	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-98	Setting of data creation list name in play list	Specifies the play list name you want to create in ID Talk.	0x8C	0xD3	0x32	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-99	Setting of Time Table Play play table data	Sets the Time Table Play play data table from ID Talk to BSP-15.	0x8C	0xD3	0x33	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-101	Notification of transmission start of address before Rename of file in CF	Notifies the transmission start of file name before Rename to BSP-15 when Rename is done from ID Talk.	0x8C	0xD3	0x35	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-102	Notification of transmission start of address after Rename of file in CF	Notifies the transmission start of file name after Rename to BSP-15 when Rename is done from ID Talk.	0x8C	0xD3	0x36	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-125	Setting of table name for getting Time Table Play play table	Specifies the play table name you want to get in ID Talk.	0x8C	0xD3	0x37	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-126	Setting of table name for setting Time Table Play play table	Specifies the play table name you want to set in ID Talk.	0x8C	0xD3	0x38	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-127	Data transmission in play list	Transmits play list data in ID Talk.	0x8C	0xD3	0x39	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-128	Transmission of Schedule Play day of the week setting data	Transmits the Time Table Play day of the week setting data.	0x8C	0xD3	0x3A	0xXX	0xXX	0xXX	0xXX	0xXX Used in ID Talk only.
CD-141	Notification of play list file name transmission	Transmits the play list file name from BKM-FW32.	0x8C	0xD3	0x3E	0xXX	0xXX	0xXX	0xXX	0xXX Play list file name set in List Play window

Command notified when BKM-FW50 receives data during data transmission from ID Talk to BKM-FW50 (common in each data) ••• ⑤

∗ Only this data is control-answered.

No.	Contents	Remarks	Header	Answer	Check Sum
CD-80	Transmission data of ID Talk → BKM-FW50 in common	Data reception response of BKM-FW50	0x70	0x00	0x70

Termination notification of data transmitted from ID Talk when transmitting data from ID Talk to BKM-FW50 (common in each data)••• ⑥

No.	Outline	Description	Header	Category	Function	Data1	Data2	Check Sum
CD-90	Transmission data of ID Talk → BKM-FW50 in common	Notification of data transmission termination from ID Talk	0x83	0xD1	0xA0	0xFF	0xFF	0x64

5-8-6. List of Data Used in ID Talk for Player

Outline	Detailed contents	Data size	Remarks
Player setting (for updating)	Player setting information **Format** Data1: Setting value (Refer to the bit table below.) Data2: Slide Show Interval and Hireso Mode Upper 4Bit (Hireso Mode) 0x0∗: 16:9 0x1∗: 4:3 0x2∗: Auto Lower 4Bit (Slide Show Interval) 0x∗0: 5sec 0x∗1: 10sec 0x∗2: 20sec 0x∗3: 30sec 0x∗4: 40sec 0x∗5: 1min 0x∗6: 5min 0x∗7: 10min 0x0∗: 16:9 0x1∗: 4:3 0x2∗: Auto 0x∗2: 1min 0x∗3: 5min 0x∗4: 10min (Example) 0x11...4:3/10min **Data1 Bit table** bit0: Reserved bit1: Streaming Play Repeat 1:Enable, 0:Disable bit2: Local Play Repeat 1:Enable, 0:Disable bit3: List Play Repeat 1:Enable, 0:Disable bit4: Prior the sound of motion picture data 1:Enable, 0:Disable bit5: Resolution 1:High, 0:Low	Fixed to 2 bytes.	–
Streaming server address (for updating)	Specifies the Streaming server address. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) http://192.168.4.60/fw50/test.mpg	0 to 512Byte	–
Server Address of Store Local	Specifies the Streaming server address of the Store source. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) http://192.168.4.60/fw50/test.mpg	0 to 512Byte	–

(Continued)

Outline	Detailed contents	Data size	Remarks
Local Address of Store Local	Specifies the Local device address of the Store destination. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) fwdC:/mymovie/fw50/	0 to 250Byte	–
Local device address (for updating)	Specifies the Local device address. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) fwdC:/mymovie/fw50/	0 to 250Byte	–
BGM address (for updating)	Specifies the BGM file address. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) fwdC:/mybgm/fw50/bgm1.mp3	0 to 250Byte	–
Player Status data	Player status information **Format** • Player state (1 byte) 0x00: Idle 0x01: Streaming 0x02: Local 0x03: Store 0x04: PC Presentation 0x05: List Play 0x11: Streaming Error 0x12: Local Error 0x13: Store Error 0x14: PC Presentation Error 0x15: List Play Error • Error status (1 byte)	0 to 257Byte	–

Error No. (Hex)	Error occurrence operation	Error contents
0x00	Normal operation	
0x11	Streaming Play	Extension by which the extension of the specified reproduction file cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpeg
0c31	Local Play	Extension by which the extension of the specified reproduction file cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpe
0x52	Store Local	Extension by which the extension of the file specified in a server address cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpeg
0x56		The specified deletion file/folder does not exist.
0x58		The path specified for the creation of a new folder is invalid.

(Continued)

Outline	Detailed contents	Data size	Remarks
Player Status data	Player status information • Download status (5 bytes) Set to All 0x00 when the Player state is except Store. Data1 (1st byte): Progress (%) of the current download file Data2 (2nd and 3rd bytes): Number of currently downloaded files (0 to 1000) Data3 (4th and 5th bytes): Number of whole files (0 to 1000) • File name (4 to 250 bytes) File name during play, downloading, or occurrence of error	0 to 257Byte	–
CF card file and folder deletion information	Specifies the Local device address. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) fwdC:/mymovie/fw50/	0 to 250Byte	Used by a file deletion function of ID Talk.
Folder creation information in CF card	Specifies the Local device address. For data, a character string is stored using an ASCII code. A slash (“/”) is used as an address delimiter. (Example) fwdC:/mymovie/fw50/	0 to 250Byte	Used by a holder creation function of ID Talk.
File list getting destination address	Address to which file list is gotten	7 to 512Byte	Used by a file list getting function of ID Talk.
File list	Type? File name (character string)? Updating date? Size? \n Type? File name (character string)? Updating date? Size? \n ••• Type: 0x01: Sub-directory 0x02: Still picture file 0x03: MP3 file 0x04: Motion picture file		Used by a file list getting function of ID Talk.
Auto Store information of Store Local	Auto Store setting information ∗ The received data must be saved in EEPROM of BKM-FW32. **Format** Data1: Setting value (1 byte. ∗ Refer to the bit table on the right.) Data2: What time (1 byte) Data3: What minute (1 byte) Data4: Day of the week (1 byte. ∗ Refer to the table for a day of the week on the right.) Data5: Interval (1 byte. ∗ Refer to the interval table on the right.)	Fixed to 5 bytes.	Data1 Bit table bit0: Auto Store 1: Enable, 0: Disable bit1: Auto Play after Auto Store 1: Enable, 0: Disable bit2: Clear Local folder 1: Enable, 0: Disable bit3: Reserved bit4 Reserved bit5 Reserved bit6 Reserved bit7 Reserved **Data4 Table for a day of the week** 0x00: Every day 0x01: Monday 0x02: Tuesday 0x03: Wednesday 0x04: Thursday

(Continued)

Outline	Detailed contents	Data size	Remarks
			0x05: Friday 0x06: Saturday 0x07: Sunday 0x08: Monday to Friday 0x09: Monday to Saturday 0x10: Saturday and Sunday **Data5 Interval table** 0x00: Every week 0x01: Once every two weeks 0x02: Once every three weeks 0x03: Once every four weeks The initial value (factory setting state) is as follows: **Auto Store setting** All 0x00 (Auto Store OFF)
Timeout	Connection timeout between ID Talk and BKM-FW50	Fixed to 2 bytes.	The initial value (factory-setting state) is as follows: 30 seconds Must be saved in EEPROM.
Error History Table	30 Player error histories (maximum) Data1: Error Status (1st byte)		–

Error No. (Hex)	Error occurrence operation	Error contents
0x00	Normal operation	
0x11	Streaming Play	Extension by which the extension of the specified reproduction file cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpeg
0c31	Local Play	Extension by which the extension of the specified reproduction file cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpe
0x52	Store Local	Extension by which the extension of the file specified in a server address cannot be reproduced Extension of file that can be reproduced (Upper- and lower-case characters are not distinguished in the extension.) Motion picture: mpg, m2v, and mpeg Still picture: gif, png, bmp, jpe, jpg, and jpeg
0x56		The specified deletion file/folder does not exist.
0x58		The path specified for the creation of a new folder is invalid.

Data2: File name (2nd to 255th byte)
File name during occurrence of error
∗ Data is necessarily 245 bytes. When data is shorter than 254 bytes, the insufficient data is embedded with “0”.

(Continued)

Outline	Detailed contents	Data size	Remarks
Time Table Play data	[Format] Data size is 2 bytes. The upper 4 bits indicate the day of the week and the lower 12 bits indicate time. 0x0 Day of the week 0x000 Time (minute) Invalid case 0xFFF	Fixed to 2 bytes.	Table for a day of the week 0x0 Sunday 0x1 Monday 0x2 Tuesday 0x3 Wednesday 0x4 Thursday 0x5 Friday 0x6 Saturday Example: In the case of 19:31 on Tuesday 0x24, 0x93 When asked if the application is activated using Time Table Play, and if not, the data of the invalid case is returned.
CF (MD) device all size	CF card total capacity (KB) 4 bytes	Fixed to 4 bytes.	
CF (MD) device remain size	CF card remaining capacity (KB) 4 bytes	Fixed to 4 bytes.	
Data in play list	Play contents name (character string) \n Play contents name (character string) \n ∗ Absolute path specification Example: fwdC://abcd/defg/foo.mpg http://192.168.1.1/fw50/bar.mpg		Used when getting the play list in ID Talk. ∗ Absolute path specification
List of Play list file	List file name (character string) \n List file name (character string) \n ∗ Absolute path specification Example: fwdC://xPlayList/list1.lst fwdC://xPlayList/list2.lst		Used when getting the list of the play list in ID Talk.
Play list file name you want to get	List file name (character string)	0 to 250Byte	Used when getting the data in the play list in ID Talk.
Play list file name you want to get	List file name (character string)	0 to 250Byte	Used when getting the data in the play list in ID Talk.
CF card file and file name before folder Rename	Local device address (URI)	0 to 250Byte	Used in the file Rename function of ID-Talk.
CF card file and file name after folder Rename	Local device address (URI)	0 to 250Byte	Used in the file Rename function of ID-Talk.
Time Table Play play table data	Power OFF time \n Power OFF valid/invalid \n (0: invalid, 1: valid) Time \n Play contents (list) name (character string) \n BGM name (character string) \n Repeat flag \n Example: In the case of Power OFF at 5 :00 and contents play at 1:00 and 2:30 0500 1 0100 fwdC://abcd/defg/foo.mpg fwdC://bgm/bgm.mp3 1 0230 fwdC://abcd/mpg/ fwdC://bgm/bgm2.mp3 1		[Power OFF time] [time] Time is represented by 4 digits: hour (two digits) and minute (two digits) (36 hours for one day) Example: 16:45 ••• 1645 ∗ Play contents/absolute path specification for BGM ∗ \n is required even if there is no BGM specification.

(Continued)

Outline	Detailed contents	Data size	Remarks
Time Table Play play day of the week data	Day of the week \n Example: [Sunday: A, Monday: B, Tuesday: A, Wednesday: G, Thursday: None, Friday: C, Saturday: None] A B A G Z C Z		Used when getting or changing the play day of the week data in ID Talk. [Table name] Seven types from A to G. (Alphabet in upper case letter) ∗The first line is Sunday and the seventh line is Saturday. ∗Enter “Z” in the case of no play. ∗There should be seven lines, however if not, deal it as “Z”.
Number of file list	Number of file list 4 bytes	Fixed to 4 bytes	
List file name currently being played	List file name (character string)	0 to 250Byte	
Time Table Play all play table	Day of the week + time	0 to 420Byte	All day of the week and time information of play table (Data is stored every 2 bytes without delimiter.)
SNMP Trap data	[Format] ・Trap contents (1 byte) 0x00 Incorrect CF eject Status 0x01 Clear Incorrect CF eject Status	Fixed to 1 byte.	
CF device status	[Format] ・H/W Status (1 byte) 0x00 CF eject 0x01 CF insert	Fixed to 1 byte.	
Time Table Play table name	[Format] ・0x41 (‘A’) to 0x47 (‘G’)	Fixed to 1 byte.	
Power ON/Power OFF time	[Format] [Sunday Power ON time 1] [Sunday Power ON time 2] [Sunday Power OFF time 1] [Sunday Power OFF time 2] ・ ・ ・ [Saturday Power ON time 1] [Saturday Power ON time 2] [Saturday Power OFF time 1] [Saturday Power OFF time 2] Data size is 2 bytes. The upper 4 bits indicate the day of the week and the lower 12 bits indicate time. 0x0 Day of the week 0x000 Time (minute) Invalid case 0xFFF		Table for a day of the week 0x0 Sunday 0x1 Monday 0x2 Tuesday 0x3 Wednesday 0x4 Thursday 0x5 Friday 0x6 Saturday Example: In the case of 19:31 on Tuesday 0x24, 0x93 ・When the Power ON/Power OFF time is not set, 0xFFFF is returned. ・For the time on Display, do not overwrite it. Set all Power ON/OFF settings on Display to Disable.

(Continued)

Outline	Detailed contents	Data size	Remarks
Advanced setting	[Format] [Auto Play Setting (1byte)] 0x01: Cancel 0x01: Cancel [Time Table Play Setting (1byte)] 0x00: Delay 0x01: Cancel 0x02: Skip [Auto Play Mode (1byte)] 0x00: OFF 0x01: Auto Play 0x02: Time Table Play [Auto Play Contents (1byte)] 0x00: Local Play 0x01: Streaming Play 0x02: List Play [Player Display Setting (1byte)] 0x00: Auto 0x01: 480P 0x02: 480I 0x03: 576P [Guide Mode (1byte)] 0x00: ON 0x01: OFF [Blank Color (1byte)] 0x00: Black 0x01: Dark Gray 0x02: Gray [Trace Log Mode (1byte)] 0x00: OFF 0x01: ON	Fixed to 8 bytes.	The initial value (factory-setting state) is as follows: [Auto Play Setting (1byte)] 0x01: Cancel [Time Table Play Setting (1byte)] 0x00: Delay [Auto Play Mode (1byte)] 0x01: Auto Play [Auto Play Contents (1byte)] 0x00: Local Play [Player Display Setting (1byte)] 0x00: Auto [Guide Mode (1byte)] 0x00: ON [Blank Color (1byte)] 0x02: Gray [Trace Log Mode (1byte)] 0x00: OFF
Address of BGM currently being played	Specify the BGM file address. [Format] Same as initial information	0 to 250Byte	Transmits every time the BGM file to be played is changed. If it is stopped, “(NULL character string)” is sent.
Play list file name	List file name (character string)	0 to 250Byte	List file name set in List Play page (stored in NVRAM)
Log file address	Log file address (character string)	0 to 250Byte	Address of log file for getting in ID-Talk
File system status		Fixed to 1 byte.	Used to check which status the system is in; deleting the file/ folder, creating the folder or storing data in ID Talk. If the status is not Idle, the following command response is returned as Canceled. ・ CN-65 Streaming Play start ・ CN-67 Local Play start ・ CN-69 Store Local start ・ CN-74 Deletion of file/folder ・ CN-75 Creation of folder ・ CN-125 Rename of file/folder ・ CN-146 List Play start ・ CN-153 Player log Clear

Section 6
Semiconductor Pin Assignments

The following describes the semiconductor types used in this unit.
For semiconductors marked with page numbers in the index, refer to the corresponding pages in this section. However, in some cases incompatible types are also listed, therefore, when a part is to be replaced, also refer to the Spare Parts section.
In addition, for semiconductors with ID Nos., refer to the separate CD-ROM titled “Semiconductor Pin Assignments” (Sony Part No. 9-968-546-xx) that allows searching for parts by semiconductor type or ID No.
The semiconductors in the manual or on the CD-ROM are listed by equivalent types. Thus the external view or the index mark indication may differ from the actual type.
Pin assignments and block diagrams are based on the IC manufacturer’s data book.

本機に使用されている半導体型名の一覧を下記に示します。
索引中，ページが記載されている半導体は，本章の該当ページを参照してください。ただし，互換性のない型名を併記している場合がありますので，部品を交換するときは，Spare Partsの章を参照してください。
また，ID番号が記載されている半導体は，別途発行の “Semiconductor Pin Assignments” CD−ROM版 (ソニー部品番号：9−968−546−xx)を参照してください。
半導体型名またはID番号から検索ができます。
マニュアルまたはCD−ROMに掲載されている半導体は，それぞれの機能を等価的に表わしたものです。
外観やインデックスマークの表示方法が実物と異なる場合があります。
ピン配置およびブロック図はICメーカーのデータブックに従いました。

DIODE	Page or ID No.
1SS355TE-17	DC008-02
DAP222	DC001-02
DAP222-TL	DC001-02
PGB0010603NR	DC016-01
RD3.9SB2	DC008-04
RD3.9SB2-T1	DC008-04

LED	Page or ID No.
SML-310DTT86	LC004-01
SML-310MTT86	LC004-01
SML-A12MT	LC013-01

TRANSISTOR	Page or ID No.
2SA1577-QR	TC001-01
2SA1577-T106-QR	TC001-01
2SC4081-R	TC001-02
2SC4081T106R	TC001-02
DTC144EUA-T106	TC001-03

IC	Page or ID No.
IS42S32200B-6TL-TR	IS42S32200B-6TL-TR
LM385M-1.2	LM385M-1.2
LM385MX-1.2	LM385M-1.2
MT48LC8M16A2P-75-Y15WTR	HY57V281620AT-P
NJM3404AV(TE2)	RC4558
NJM3404AV	RC4558
SN74AHC1G08DCKR	TC7S08F
SN74LVC821APWR	V74ACT821
TC7S04FU(TE85R)	TC7S04F
TC7S04FU-TE85R	TC7S04F
TC7SZ04FU(TE85R)	TC7S04F
TC7WH241FU(TE12R)	TC7W241FU
TC7WH32FU(TE12R)	TC7W32FU
TC7WH32FU-TE12R	TC7W32FU
TPS5120DBTR	TPS5120DBTR

Section 7
Spare Parts

7-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

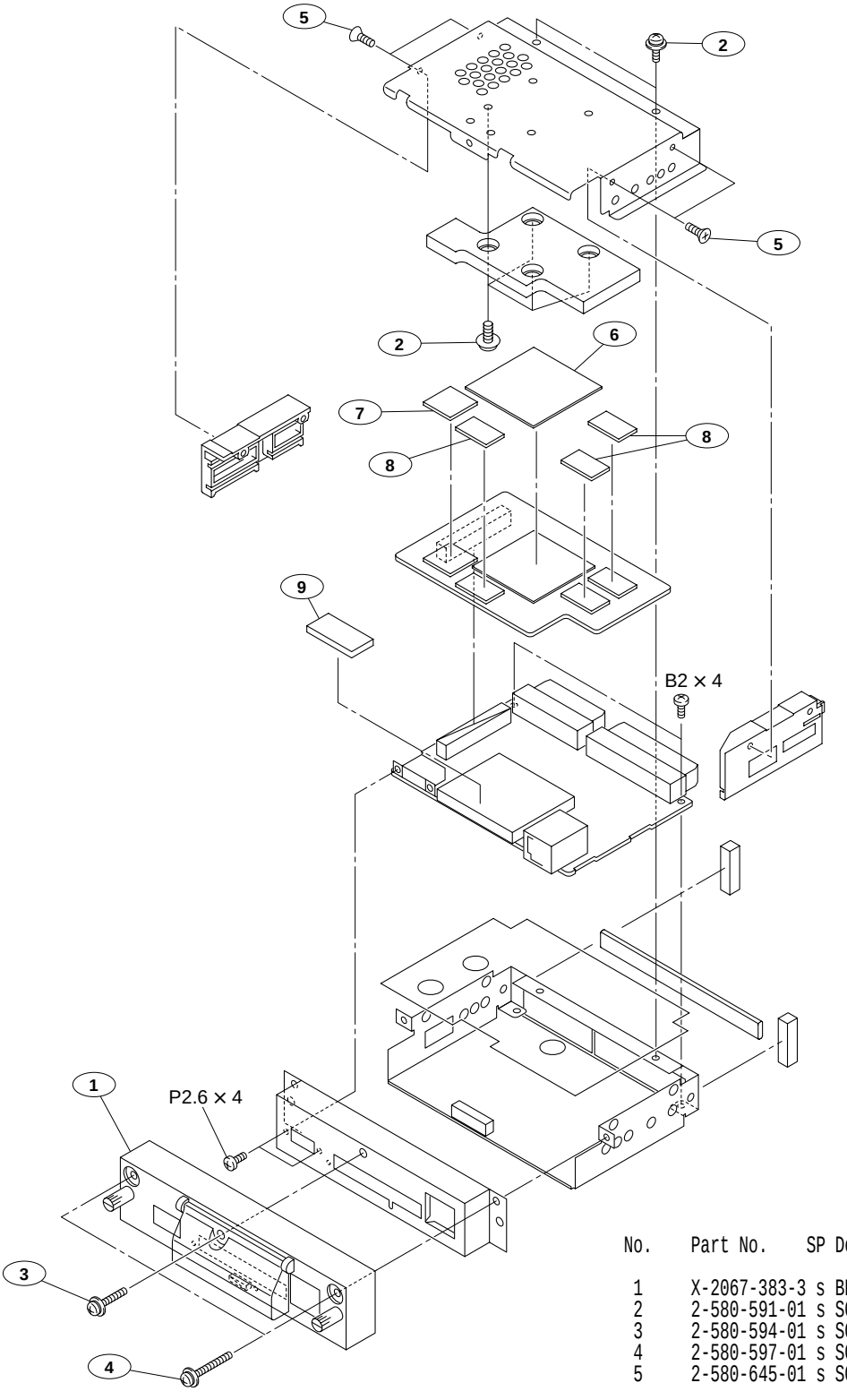
2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.
Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

7-2. Exploded Views



No.	Part No.	SP	Description
1	X-2067-383-3	s	BEZEL ASSY
2	2-580-591-01	s	SCREW, +PSW M3X5
3	2-580-594-01	s	SCREW, +PSW M3X12
4	2-580-597-01	s	SCREW, +PSW M3X20
5	2-580-645-01	s	SCREW, +KTP2 3X10
6	2-638-557-01	s	SHEET, THERMO
7	2-655-308-01	s	SHEET, THERMO
8	2-655-309-01	s	SHEET, THERMO
9	2-655-310-01	s	SHEET, THERMO
	7-621-259-25	s	SCREW +P2.6X4(EP-FE/ZN/CM2)
	7-621-772-10	s	SCREW +B2X4

7-3. Electrical Parts List

US1 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
C1101	1-100-911-11	s	CAP, CERAMIC 4.7MF X7R (3216)
C1104	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1105	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1107	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1108	1-112-067-11	s	CAP,CERAMIC 0.22UF X7R 1608
C1109	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1113	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1114	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1115	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1116	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1117	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1118	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1119	1-100-908-11	s	CAP,CERAMIC 1MF X6S 1608
C1120	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1121	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1122	1-112-067-11	s	CAP,CERAMIC 0.22UF X7R 1608
C1123	1-100-908-11	s	CAP,CERAMIC 1MF X6S 1608
C1124	1-164-866-11	s	CAPACITOR,CHIP CERAMIC 47PF/50
C1125	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1126	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1127	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1128	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1129	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1130	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1131	1-164-874-11	s	CAPACITOR,CHIP CERAMIC 100PF
C1132	1-164-874-11	s	CAPACITOR,CHIP CERAMIC 100PF
C1133	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1134	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1135	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1136	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1137	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1138	1-100-906-11	s	CAP,CERAMIC 0.01MF X7R 1005
C1139	1-135-599-11	s	CAP, ELECT 39MF / 16V
C1140	1-112-064-11	s	CAP,CERAMIC 2.2UF X7R 2012
C1141	1-100-908-11	s	CAP,CERAMIC 1MF X6S 1608
C1142	1-100-908-11	s	CAP,CERAMIC 1MF X6S 1608
C1143	1-100-421-21	s	CAP, ELECT 220MF (6.3X5.9)
C1144	1-100-963-21	f	CAP, ELECT 330MF (6.3X5.9)
C1145	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1146	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1147	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1149	1-112-068-11	s	CAP,CERAMIC 220PF X7R 1005
C1150	1-112-068-11	s	CAP,CERAMIC 220PF X7R 1005
C1152	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1153	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1154	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1155	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1156	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1157	1-112-064-11	s	CAP,CERAMIC 2.2UF X7R 2012
C1158	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1159	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1160	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1201	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1202	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1203	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1204	1-164-850-11	s	CAPACITOR,CHIP CERAMIC 10PF/50
C1205	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1206	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1207	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005

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Ref. No. or Q'ty	Part No.	SP	Description
C1208	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1209	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1210	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1211	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1212	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1213	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1214	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1215	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1216	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1217	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1218	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1219	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1220	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1221	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1222	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1223	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1224	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1225	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1226	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1227	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1228	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1229	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1230	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1231	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1232	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1233	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1234	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1235	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1236	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1237	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1238	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1239	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1240	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1241	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1242	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1243	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1244	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1245	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1246	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1248	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1249	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1250	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1251	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C1252	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1253	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1254	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1255	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1256	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1257	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1258	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1259	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1260	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1261	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1262	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1263	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1302	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1303	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1304	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1305	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005

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Ref. No. or Q'ty	Part No.	SP	Description
C1306	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1307	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1308	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1309	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1401	1-100-908-11	s	CAP,CERAMIC 1MF X6S 1608
C1403	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1404	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1405	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1406	1-100-907-11	s	CAP,CERAMIC 0.1MF X7R 1005
C1407	1-112-067-11	s	CAP,CERAMIC 0.22UF X7R 1608
C1409	1-100-905-11	s	CAP, CERAMIC1000PF X7R 1005
C1410	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1411	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1412	1-126-392-11	s	CAPACITOR,CHIP ELECT100MF/6.3V
C1414	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1415	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1416	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1417	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1418	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1419	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1420	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1421	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1422	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1423	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1424	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1425	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1426	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1427	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1428	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1429	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1430	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1431	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1501	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1504	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1506	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1507	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1510	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1511	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1514	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1515	1-112-046-11	s	CAP, CERAMIC 4.7MF X6S 2012
C1518	1-112-067-11	s	CAP,CERAMIC 0.22UF X7R 1608
C1519	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1520	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1521	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1522	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1523	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1524	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1525	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1526	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1527	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1528	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1529	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1530	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1531	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1532	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1533	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1534	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1535	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1536	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005

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Ref. No. or Q'ty	Part No.	SP	Description
C1537	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C1538	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
CN1301	1-778-651-11	o	CONNECTOR, FFC (ZIF) 40P
CN1302	1-573-290-21	s	PIN,CONNECTOR (4P)(SMD)(1.5MM)
D1104	8-719-078-02	s	DIODE 1SS357(T3SONY1)
D1105	8-719-078-02	s	DIODE 1SS357(T3SONY1)
D1106	8-719-158-02	s	DIODE RD3.9SB2
D1107	8-719-158-02	s	DIODE RD3.9SB2
D1108	8-719-991-00	s	DIODE DAP222
D1109	8-719-078-02	s	DIODE 1SS357(T3SONY1)
D1401	8-719-074-43	s	DIODE BAS316-115
D1402	8-719-074-43	s	DIODE BAS316-115
D1404	8-719-053-07	s	LED SML-310MTT86
D1405	8-719-053-07	s	LED SML-310MTT86
D1406	8-719-053-07	s	LED SML-310MTT86
D1407	8-719-053-07	s	LED SML-310MTT86
FB1103	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB1203	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FL1103	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1104	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1201	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1202	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1302	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1401	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL1501	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
IC1101	6-703-176-01	s	IC PST3627UL
IC1102	8-759-831-52	s	IC TC7WH125FK(TE85R)
IC1103	8-759-649-46	s	IC SN74AHC1G08DCKR
IC1105	6-707-616-01	s	IC AK4386VT-E2
IC1106	8-759-058-43	s	IC NJM3404AV
IC1107	6-702-510-01	s	IC TPS5120DBTR
IC1108	6-703-176-01	s	IC PST3627UL
IC1201	8-719-985-01	s	IC LM385M-1.2
IC1202	6-708-405-01	s	IC BSP-15-300-LF
IC1204	6-703-046-01	s	IC SN74LVC1G08DCKR
IC1205	6-702-277-01	s	IC R1141Q181B-TR-FA
IC1301	6-701-499-01	s	IC SN74LVC821APWR
IC1302	6-701-499-01	s	IC SN74LVC821APWR
IC1303	8-759-058-58	s	IC TC7S04FU-TE85R
IC1305	8-759-560-62	s	IC TC7WH32FU-TE12R
IC1401	6-704-513-01	s	IC PST3625UL
IC1402	6-703-038-01	s	IC CD74HC4538PWR
IC1403	6-707-348-01	s	IC TC58DVM82A1TG00BBQ
IC1404	6-707-348-01	s	IC TC58DVM82A1TG00BBQ
IC1405	8-759-524-25	o	IC TC7WH241FU(TE12R)
IC1406	6-706-660-01	s	IC CXD9744GA
IC1501	6-705-721-01	s	IC MT48LC8M16A2P-75-Y15WTR
IC1502	6-705-721-01	s	IC MT48LC8M16A2P-75-Y15WTR
IC1503	6-705-721-01	s	IC MT48LC8M16A2P-75-Y15WTR
IC1504	6-705-721-01	s	IC MT48LC8M16A2P-75-Y15WTR
L1101	1-469-555-21	s	INDUCTOR, CHIP 10UH (LB2016)
L1102	1-412-052-21	s	INDUCTOR, SMALL TYPE 1.00UH
L1103	1-424-922-21	s	COIL, CHOKE (SMD) 10UH
L1104	1-424-799-21	s	COIL, CHOKE (SMD) 10UH
L1106	1-412-054-21	s	INDUCTOR,SMALL TYPE
L1108	1-469-555-21	s	INDUCTOR, CHIP 10UH (LB2016)

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Ref. No. or Q'ty	Part No.	SP	Description
Q1101	8-729-922-10	s	TRANSISTOR 2SA1577-QR
Q1102	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1103	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1104	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1105	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1106	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1107	8-729-054-68	s	TRANSISTOR FDS6986S
Q1108	8-729-054-68	s	TRANSISTOR FDS6986S
Q1401	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1402	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q1404	9-910-999-31	s	SUPPLY END
Q1405	9-910-999-31	s	SUPPLY END
Q1406	9-910-999-31	s	SUPPLY END
Q1407	9-910-999-31	s	SUPPLY END
R1101	1-218-937-11	s	RESISTOR, CHIP 47
R1102	1-218-937-11	s	RESISTOR, CHIP 47
R1103	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1104	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1105	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1106	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R1107	1-208-695-11	s	RESISTOR CHIP 3.3K 1/16W(1005)
R1108	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1109	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1110	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1111	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1112	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1113	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1114	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1115	1-218-945-11	s	RESISTOR,CHIP 220 1/16W(1005)
R1116	1-218-945-11	s	RESISTOR,CHIP 220 1/16W(1005)
R1117	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1118	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1119	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1121	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1122	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1123	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1128	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1129	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1130	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1131	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1133	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1134	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1139	1-218-849-11	s	RESISTOR,CHIP 1.2K 1/10W(1608)
R1140	1-218-849-11	s	RESISTOR,CHIP 1.2K 1/10W(1608)
R1143	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1144	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1145	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1146	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R1147	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1148	1-218-977-11	s	RESISTOR,CHIP 100K 1/16W(1005)
R1149	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1150	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R1151	1-208-703-11	s	RESISTOR,CHIP 6.8K 1/16W(1005)
R1152	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R1153	1-218-982-11	s	RESISTOR CHIP 270K 1/16W(1005)
R1154	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R1157	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1158	1-218-953-11	s	RESISTOR, CHIP 1K 1/16W
R1159	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)

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Ref. No. or Q'ty	Part No.	SP	Description
R1160	1-208-697-11	s	RESISTOR CHIP 3.9K 1/16W(1005)
R1161	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1162	1-218-982-11	s	RESISTOR CHIP 270K 1/16W(1005)
R1163	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1164	1-208-931-11	s	RESISTOR, CHIP 68K (1005)
R1166	1-208-929-11	s	RES, CHIP 56K (1005)
R1167	1-208-929-11	s	RES, CHIP 56K (1005)
R1168	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R1169	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R1170	1-218-849-11	s	RESISTOR,CHIP 1.2K 1/10W(1608)
R1171	1-218-849-11	s	RESISTOR,CHIP 1.2K 1/10W(1608)
R1172	1-208-927-11	s	RESISTOR, CHIP 47K 1/16W(1005)
R1174	1-208-709-11	s	RESISTOR CHIP 12K 1/16W (1005)
R1176	1-208-695-11	s	RESISTOR CHIP 3.3K 1/16W(1005)
R1177	1-208-905-11	s	RESISTOR, CHIP 5.6K (1005)
R1179	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1180	1-220-802-11	s	RESISTR, CHIP 3.3 1/16W (1005)
R1181	1-220-802-11	s	RESISTR, CHIP 3.3 1/16W (1005)
R1182	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R1183	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1184	1-208-697-11	s	RESISTOR CHIP 3.9K 1/16W(1005)
R1186	1-208-715-11	s	RESISTOR,CHIP 22K 1/16W (1005)
R1187	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1188	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1189	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1190	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1191	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1192	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1201	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R1203	1-218-951-11	s	RESISTOR, CHIP 680 1/16
R1204	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1205	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1207	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R1208	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R1209	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R1211	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R1212	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1213	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1214	1-218-937-11	s	RESISTOR, CHIP 47
R1215	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1216	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1217	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1218	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1219	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1221	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1222	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1223	1-218-937-11	s	RESISTOR, CHIP 47
R1224	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1225	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1226	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1227	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1228	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1229	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1230	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1231	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1232	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1233	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1234	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1236	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W

(US1 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1237	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1239	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1242	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1243	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1244	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1246	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1248	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1249	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1250	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1251	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1252	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1253	1-218-937-11	s	RESISTOR, CHIP 47
R1254	1-218-937-11	s	RESISTOR, CHIP 47
R1255	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1258	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1259	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1260	1-220-802-11	s	RESISTR, CHIP 3.3 1/16W (1005)
R1261	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1264	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R1301	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1302	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1303	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1304	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1306	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1307	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1308	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1309	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1311	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R1401	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1402	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1403	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1404	1-208-695-11	s	RESISTOR CHIP 3.3K 1/16W(1005)
R1405	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1406	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1410	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1411	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1412	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1414	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1416	1-218-953-11	s	RESISTOR, CHIP 1K 1/16W
R1417	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1418	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1419	1-218-959-11	s	RESISTOR, CHIP 3.3K
R1420	1-218-959-11	s	RESISTOR, CHIP 3.3K
R1421	1-218-977-11	s	RESISTOR,CHIP 100K 1/16W(1005)
R1422	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1423	1-218-959-11	s	RESISTOR, CHIP 3.3K
R1425	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1428	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1429	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1430	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1431	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R1432	1-218-945-11	s	RESISTOR,CHIP 220 1/16W(1005)
R1433	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1434	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1435	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1436	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1437	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1438	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1439	1-208-911-11	s	RESISTOR, CHIP 10K (1005)

(US1 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1440	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1441	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1442	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1444	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1445	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1446	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1447	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1448	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1449	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R1450	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1451	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1452	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1453	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1454	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1455	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1456	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R1457	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1458	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1459	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1460	1-218-957-11	s	RESISTOR,CHIP 2.2K 1/16W(1005)
R1462	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1463	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1464	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1465	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1466	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1467	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1468	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1469	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1471	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1474	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1478	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1480	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1482	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1483	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1484	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R1485	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R1486	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R1487	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R1488	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R1489	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R1490	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R1495	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
RB1101	1-234-377-21	s	RES, NETWORK 4.7KX4 (1005)
RB1102	1-234-377-21	s	RES, NETWORK 4.7KX4 (1005)
RB1201	1-234-378-11	s	RES, NETWORK 10KX4 (1005)
RB1202	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1203	1-234-711-21	s	RES, CHIP NETWORK 22X8 (3816)
RB1204	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1206	1-234-882-21	s	RES, CHIP NETWORK 47KX8 (3816)
RB1207	1-234-882-21	s	RES, CHIP NETWORK 47KX8 (3816)
RB1208	1-234-882-21	s	RES, CHIP NETWORK 47KX8 (3816)
RB1209	1-234-380-11	s	RESISTOR,NETWORK 47KX4 (1005)
RB1210	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1211	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1212	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1213	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB1214	1-234-370-11	s	RES, NETWORK 22X4 (1005)
X1101	1-813-263-11	s	OSCILLATOR, CRYSTAL

(US1 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
X1201	1-795-177-21	s	OSCILLATOR, CRYSTAL

US2 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-694-974-21	s	CONTACT TERMINAL
1pc	1-694-974-21	s	CONTACT TERMINAL
1pc	1-694-974-21	s	CONTACT TERMINAL
1pc	1-818-138-11	s	CONNECTOR, CARD(COMPACT FLASH)
C2101	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2105	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2106	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2107	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2108	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2109	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2110	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2111	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2112	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2113	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2114	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2115	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2116	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2117	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2118	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2119	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2120	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2121	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2123	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2124	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2125	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2126	1-164-850-11	s	CAPACITOR,CHIP CERAMIC 10PF/50
C2127	1-164-850-11	s	CAPACITOR,CHIP CERAMIC 10PF/50
C2128	1-164-850-11	s	CAPACITOR,CHIP CERAMIC 10PF/50
C2129	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2130	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2131	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2132	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2133	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2134	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2135	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2136	1-165-887-91	s	CAP, CERAMIC 0.22MF (1005)
C2137	1-112-066-11	s	CAP,CERAMIC 10UF X7R 3216
C2201	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2202	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2203	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2204	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2205	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2206	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2207	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2208	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2209	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2210	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2211	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2212	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2213	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2214	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2215	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2216	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2217	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2218	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2219	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2221	1-112-066-11	s	CAP,CERAMIC 10UF X7R 3216
C2223	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2224	1-112-066-11	s	CAP,CERAMIC 10UF X7R 3216

(US2 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C2225	1-100-881-91	s	CAPACITOR CERAMIC47MF C(3216)
C2226	1-164-858-11	s	CAPACITOR,CERAMIC 22PF/50V
C2227	1-100-881-91	s	CAPACITOR CERAMIC47MF C(3216)
C2228	1-164-858-11	s	CAPACITOR,CERAMIC 22PF/50V
C2229	1-100-881-91	s	CAPACITOR CERAMIC47MF C(3216)
C2230	1-164-858-11	s	CAPACITOR,CERAMIC 22PF/50V
C2231	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2232	1-100-352-91	s	CAP, CHIP CERAMIC 1MF B (1608)
C2233	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2301	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2302	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2303	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2304	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2305	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2306	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2307	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2308	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2309	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2310	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2311	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2312	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2313	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2314	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2315	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2316	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2317	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2318	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2319	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2320	1-100-567-81	s	CAP,CHIP CERAMIC 0.01MF B 1005
C2321	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2322	1-112-300-91	s	CAP, CERAMIC 4.7MF B (2012)
C2324	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2325	1-112-300-91	s	CAP, CERAMIC 4.7MF B (2012)
C2401	1-100-159-91	s	CAP, CERAMIC 22MF B (SMD) 3216
C2403	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2405	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2406	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2407	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2408	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2409	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2410	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2411	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2412	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2413	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2414	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2415	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2417	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2418	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2501	1-125-889-11	s	CAPACITOR, CERAMIC 2.2MF
C2502	1-125-889-11	s	CAPACITOR, CERAMIC 2.2MF
C2503	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2504	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2505	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2506	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2507	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2508	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2509	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2510	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2511	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012

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Ref. No. or Q'ty	Part No.	SP	Description
C2512	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2513	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2514	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2515	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2518	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2519	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2520	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2521	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2522	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2523	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2524	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2525	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2526	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2527	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2528	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2529	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2530	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2531	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2532	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2533	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2534	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2535	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2536	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2537	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2538	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2539	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2540	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2541	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2542	1-100-909-11	s	CAP, CERAMIC 10MF X6S 2012
C2544	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2545	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2546	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2547	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2548	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2549	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2550	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2551	1-117-748-11	s	CAPACITOR,CERAMIC 10PF CH/16V
C2552	1-117-748-11	s	CAPACITOR,CERAMIC 10PF CH/16V
C2553	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2554	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2555	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2556	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
C2557	1-100-916-11	s	CAP, CERAMIC 0.1MF X7R 1005
CN2102	1-794-223-11	o	CONNECTOR, BOARD TO BOARD 40P
CN2103	1-818-731-11	o	CONNECTOR, BOARD TO BOARD 60P
CN2105	1-774-771-11	s	CONNECTOR, FFC/FPC 14P
CN2106	1-580-057-11	s	PIN,CONNECTOR 4P
CN2301	1-793-994-11	s	CONNECTOR, USB
CN2401	1-818-139-11	s	PIN, CONNECTOR (CF CARD)
CN2501	1-815-187-11	s	JACK, MODULAR
D2201	8-719-053-08	s	LED SML-310DTT86
D2202	8-719-158-02	s	DIODE RD3.9SB2
D2203	8-719-158-02	s	DIODE RD3.9SB2
D2204	8-719-158-02	s	DIODE RD3.9SB2
D2205	8-719-988-61	s	DIODE 1SS355TE-17
D2301	6-500-701-01	s	DIODE PGB0010603NR
D2302	6-500-701-01	s	DIODE PGB0010603NR
D2303	6-500-701-01	s	DIODE PGB0010603NR

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Ref. No. or Q'ty	Part No.	SP	Description
D2402	6-500-635-01	s	DIODE SML-A12MT
D2501	8-719-991-00	s	DIODE DAP222
D2502	6-500-701-01	s	DIODE PGB0010603NR
D2506	6-500-701-01	s	DIODE PGB0010603NR
D2507	6-500-701-01	s	DIODE PGB0010603NR
D2508	6-500-701-01	s	DIODE PGB0010603NR
F2101 ⚠	1-576-612-21	s	FUSE, MICRO (1608 TYPE)(1A/32V)
F2102 ⚠	1-576-415-11	s	FUSE, MICRO (2A/32V)(1608)
FB2101	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2102	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2103	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2104	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2105	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2107	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2202	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2203	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2204	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2205	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2301	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2302	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2303	1-400-382-11	s	EMI FERRITE (SMD) (1608)
FB2402	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2501	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2502	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2503	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2504	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FB2505	1-400-794-21	s	EMI FERRITE (SMD) (1608)
FL2101	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2301	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2302	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2303	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2401	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2402	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2501	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2504	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
FL2505	1-400-874-11	s	FILTER, EMI REMOVAL (SMD)
IC2101	6-705-983-01	s	IC IS42S32200B-6TL-TR
IC2103	8-759-596-29	s	IC SN74LV4066APWR
IC2104	6-703-176-01	s	IC PST3627UL
IC2202	6-705-177-01	s	IC W95640-WDW6T
IC2203	8-759-649-46	s	IC SN74AHC1G08DCKR
IC2205	6-708-503-01	s	IC LTC3407EMSE-2#TR
IC2206	6-707-707-01	s	IC LTC3405AES6#TR-R2
IC2207	8-759-592-44	s	IC TC7SZ04FU(TE85R)
IC2302	6-707-361-01	s	IC ST890BDR
IC2303	6-704-450-01	s	IC UPD720101F1-EA8
IC2402	6-708-649-01	s	IC USB2228
IC2404	6-707-361-01	s	IC ST890BDR
IC2501	6-700-790-01	s	IC RTL8100BL
IC2502	8-759-695-10	s	IC M93C46-WDW6T
IC2503	8-759-649-46	s	IC SN74AHC1G08DCKR
IC2504	6-708-432-01	s	IC RTL8305SC-LF
L2101	1-469-555-21	s	INDUCTOR, CHIP 10UH (LB2016)
L2201	1-412-054-21	s	INDUCTOR,SMALL TYPE
L2202	1-412-056-11	s	INDUCTOR 4.7UH (3225)
L2203	1-412-054-21	s	INDUCTOR,SMALL TYPE
L2301	1-456-583-11	s	COIL, COMMON MODE CHOKE

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Ref. No. or Q'ty	Part No.	SP	Description
L2401	1-469-555-21	s	INDUCTOR, CHIP 10UH (LB2016)
L2402	1-412-054-21	s	INDUCTOR,SMALL TYPE
L2502	1-412-056-11	s	INDUCTOR 4.7UH (3225)
L2503	1-469-555-21	s	INDUCTOR, CHIP 10UH (LB2016)
Q2101	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q2102	8-729-054-77	s	TRANSISTOR 2SC4098-T106-PQ
Q2103	8-729-054-77	s	TRANSISTOR 2SC4098-T106-PQ
Q2104	8-729-054-77	s	TRANSISTOR 2SC4098-T106-PQ
Q2201	6-550-549-01	s	TRANSISTOR DTC114EUAFT106
Q2301	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q2501	8-729-922-10	s	TRANSISTOR 2SA1577-QR
R2101	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2102	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2103	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2104	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R2105	1-218-973-11	s	RESISTOR,CHIP 47K 1/16W (1005)
R2107	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2108	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2109	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2110	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2111	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2112	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2113	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2114	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2115	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2116	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2118	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2120	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2122	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R2123	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R2124	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2125	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2126	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2127	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2128	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2129	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2130	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2131	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2132	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2133	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2134	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2135	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2136	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2137	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2140	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2141	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2142	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2143	1-208-860-11	s	RESISTOR CHIP 75 1/16W (1005)
R2144	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2145	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2146	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2147	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2148	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2149	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2150	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2151	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2152	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2153	1-208-911-11	s	RESISTOR, CHIP 10K (1005)

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Ref. No. or Q'ty	Part No.	SP	Description
R2154	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2155	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2156	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2157	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2158	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2159	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2160	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2161	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2204	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2205	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2206	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2208	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2209	1-218-952-11	s	RESISTOR, CHIP 820
R2210	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2212	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2213	1-218-952-11	s	RESISTOR, CHIP 820
R2214	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2215	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2216	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R2217	1-218-967-11	s	RESISTOR,CHIP 15K 1/16W (1005)
R2218	1-218-967-11	s	RESISTOR,CHIP 15K 1/16W (1005)
R2219	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2220	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2221	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2222	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2223	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2225	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2227	1-218-967-11	s	RESISTOR,CHIP 15K 1/16W (1005)
R2228	1-218-952-11	s	RESISTOR, CHIP 820
R2229	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2230	1-218-937-11	s	RESISTOR, CHIP 47
R2231	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2232	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2233	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2234	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2235	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2236	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2238	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2239	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2240	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2241	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2242	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2243	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R2245	1-208-939-11	s	RESISTOR, CHIP 150K (1005)
R2247	1-208-939-11	s	RESISTOR, CHIP 150K (1005)
R2248	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2249	1-208-939-11	s	RESISTOR, CHIP 150K (1005)
R2250	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2251	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2252	1-208-955-11	s	RESISTOR CHIP 680K
R2253	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2254	1-208-955-11	s	RESISTOR CHIP 680K
R2255	1-208-939-11	s	RESISTOR, CHIP 150K (1005)
R2257	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2258	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2259	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2260	1-218-961-11	s	RESISTOR, CHIP 4.7K 1/16W
R2261	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2262	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)

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Ref. No. or Q'ty	Part No.	SP	Description
R2263	1-218-989-11	s	RESISTOR,CHIP 1M 1/16W (1005)
R2264	1-218-945-11	s	RESISTOR,CHIP 220 1/16W(1005)
R2265	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2266	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2273	1-218-953-11	s	RESISTOR, CHIP 1K 1/16W
R2301	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2302	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2303	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2304	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2305	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2306	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2307	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2308	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2309	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2310	1-220-884-11	s	RESISTOR CHIP 39 1/16W (1005)
R2311	1-220-884-11	s	RESISTOR CHIP 39 1/16W (1005)
R2312	1-208-675-11	s	RESISTOR CHIP 470 1/16W (1005)
R2313	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2314	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2315	1-208-675-11	s	RESISTOR CHIP 470 1/16W (1005)
R2316	1-220-884-11	s	RESISTOR CHIP 39 1/16W (1005)
R2317	1-220-884-11	s	RESISTOR CHIP 39 1/16W (1005)
R2318	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2319	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2320	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2321	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2322	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2323	1-208-675-11	s	RESISTOR CHIP 470 1/16W (1005)
R2324	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2326	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2327	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2328	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2329	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2330	1-208-910-11	s	RESISTOR,CHIP 9.1K (1005)
R2331	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2332	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2333	1-218-965-11	s	RESISTOR, CHIP 10K 1/16W
R2335	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2337	1-208-711-11	s	RESISTOR CHIP 15K 1/16W (1005)
R2338	1-218-977-11	s	RESISTOR,CHIP 100K 1/16W(1005)
R2339	1-208-893-11	s	RESISTOR, CHIP 1.8K (1005)
R2341	1-208-885-11	s	RESISTOR, CHIP 820 1/16W(1005)
R2342	1-208-675-11	s	RESISTOR CHIP 470 1/16W (1005)
R2343	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2344	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2345	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2401	1-208-885-11	s	RESISTOR, CHIP 820 1/16W(1005)
R2403	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2404	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2418	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2424	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2426	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2427	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2428	1-208-691-11	s	RESISTOR CHIP 2.2K 1/16W(1005)
R2429	1-208-709-11	s	RESISTOR CHIP 12K 1/16W (1005)
R2433	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2434	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2435	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2436	1-208-911-11	s	RESISTOR, CHIP 10K (1005)

(US2 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2437	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2438	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R2449	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2450	1-208-893-11	s	RESISTOR, CHIP 1.8K (1005)
R2451	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2452	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2453	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2454	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2455	1-218-941-81	s	RESISTOR,CHIP 100,1/16W (1005)
R2501	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2502	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2504	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2505	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2508	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2509	1-208-905-11	s	RESISTOR, CHIP 5.6K (1005)
R2510	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2512	1-208-699-11	s	RESISTOR,CHIP 4.7K 1/16W(1005)
R2513	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2516	1-208-691-11	s	RESISTOR CHIP 2.2K 1/16W(1005)
R2518	1-208-715-11	s	RESISTOR,CHIP 22K 1/16W (1005)
R2519	1-208-935-11	s	RESISTOR, CHIP 100K (1005)
R2524	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2525	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R2526	1-218-947-11	s	RESISTOR, CHIP 330 1/16W
R2527	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2528	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2529	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2530	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2531	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2535	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2536	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2537	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2539	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2540	1-218-941-11	s	RESISTOR,CHIP 100 1/16W (1005)
R2541	1-218-953-11	s	RESISTOR, CHIP 1K 1/16W
R2542	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2543	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2544	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2545	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2546	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2547	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2548	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2550	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2551	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2552	1-208-911-11	s	RESISTOR, CHIP 10K (1005)
R2553	1-218-935-11	s	RESISTOR,CHIP 33 1/16W (1005)
R2554	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2559	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2564	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2565	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2566	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2567	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2568	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2573	1-208-643-11	s	RESISTOR CHIP 22 1/16W (1005)
R2577	1-218-990-11	s	RESISTOR,CHIP 0 1/16W (1005)
R2578	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2579	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2580	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)
R2581	1-208-855-81	s	RESISTOR,CHIP 47 1/16W (1005)

(US2 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2582	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2590	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2592	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2593	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2596	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2597	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
R2598	1-208-683-11	s	RESISTOR CHIP 1K 1/16W (1005)
RB2101	1-234-710-21	s	RES, CHIP NETWORK 47X8 (3816)
RB2102	1-234-710-21	s	RES, CHIP NETWORK 47X8 (3816)
RB2103	1-234-710-21	s	RES, CHIP NETWORK 47X8 (3816)
RB2104	1-234-710-21	s	RES, CHIP NETWORK 47X8 (3816)
RB2201	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2202	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2203	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2204	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2205	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2206	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2501	1-234-370-11	s	RES, NETWORK 22X4 (1005)
RB2502	1-234-370-11	s	RES, NETWORK 22X4 (1005)
S2201	1-786-540-21	s	SWITCH, TACTILE
TP2501	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP2502	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
X2201	1-795-102-21	s	VIBRATOR, CERAMIC
X2301	1-813-011-21	s	OSCILLATOR, CRYSTAL (SMD)
X2501	1-813-147-11	s	VIBRATOR, CRYSTAL

7-4. Supplied Accessories

SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	X-2102-348-1	s	ASSY, INSTRUCTION MANUAL
1pc	2-650-677-02	s	GUIDE, QUICK SETUP
1pc	3-703-263-04	s	BAG, CONDUCTIVE

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Schematic Diagrams

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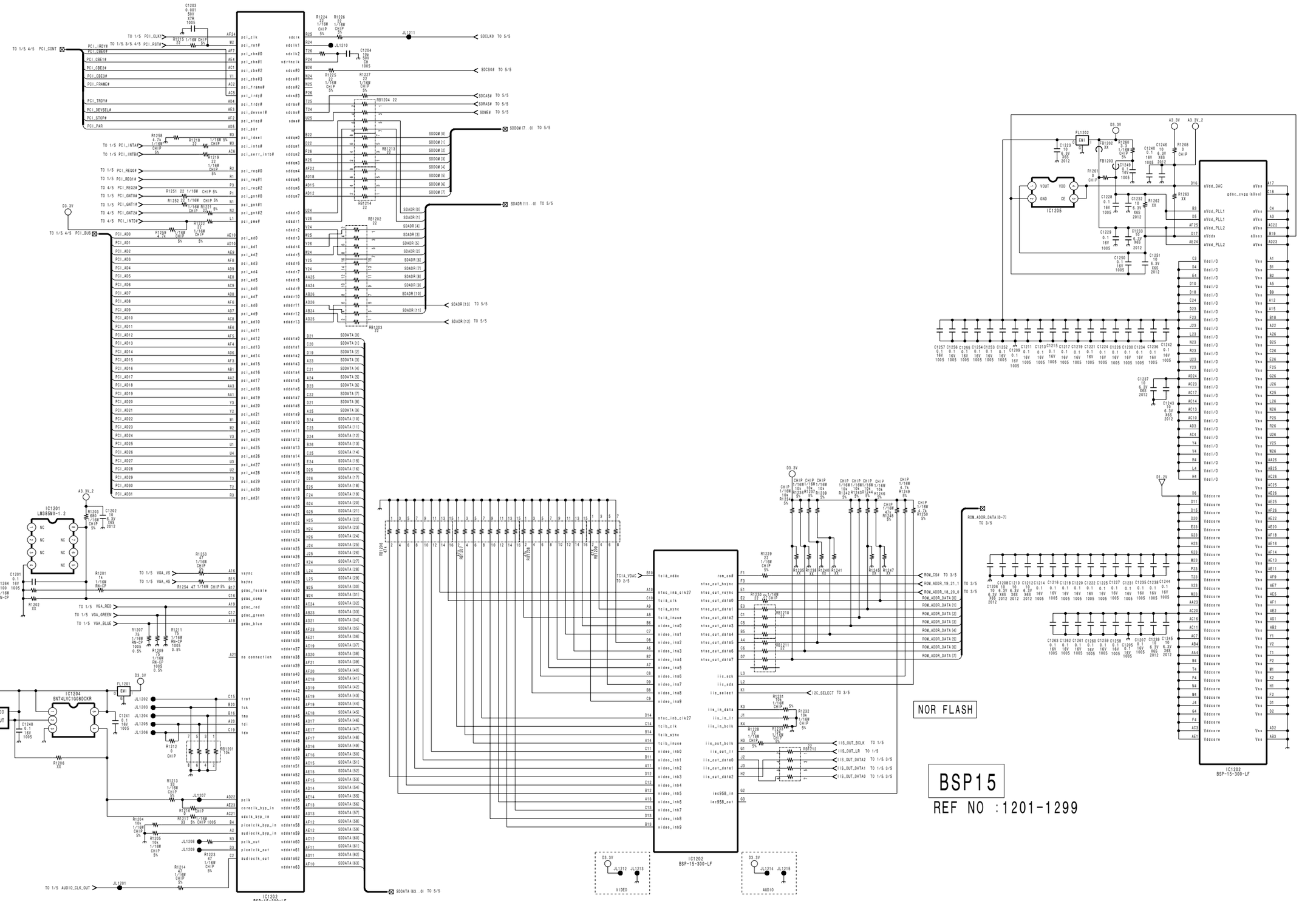
RST
PCICLK
B to B
FAN
POWER
Audio
CN/POWER/AUDIO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SN74LVC1G08DCKR
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IC1207
IC1208
IC1209
IC1210
IC1211
IC1212
IC1213
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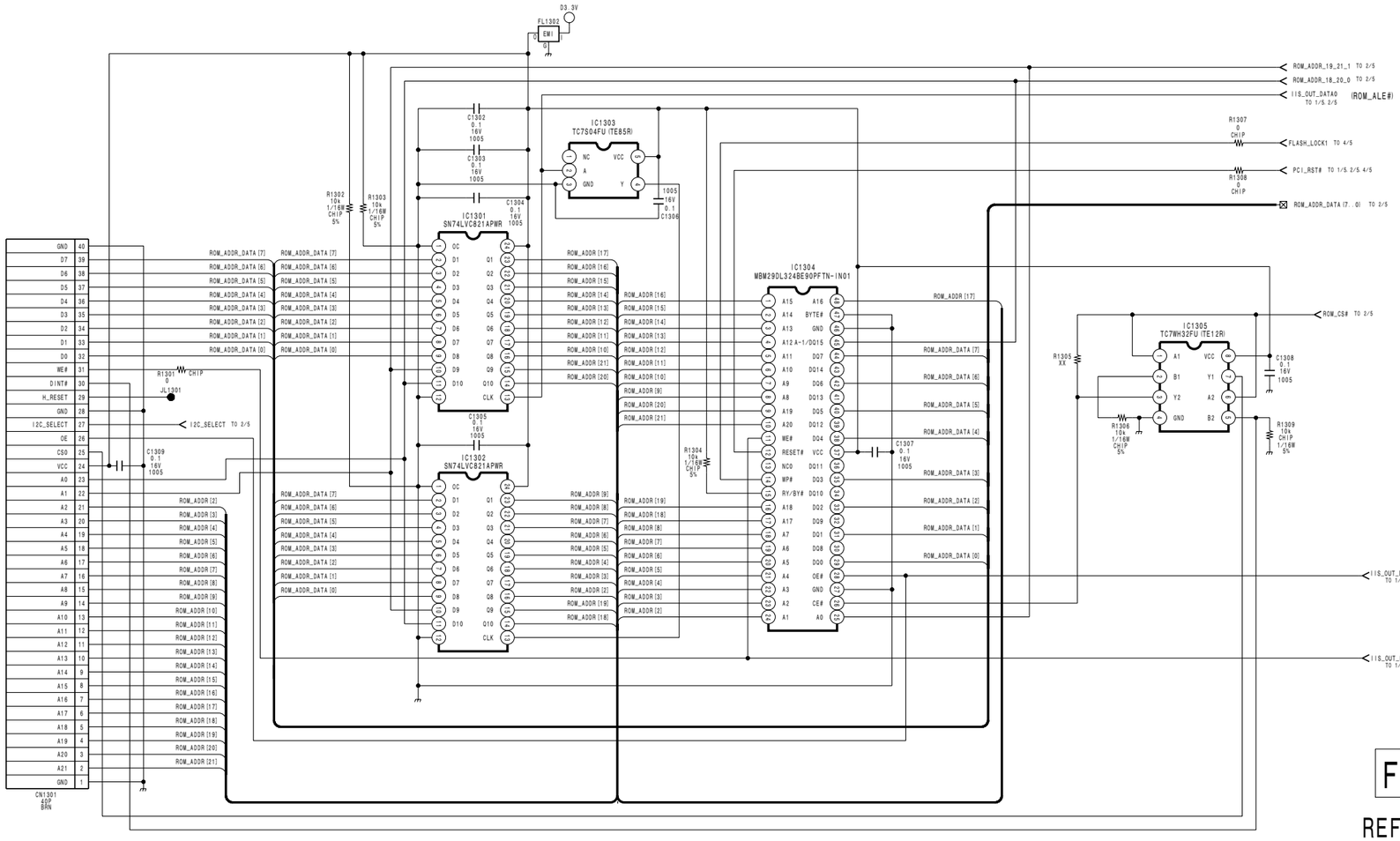
IC1244



FLASH

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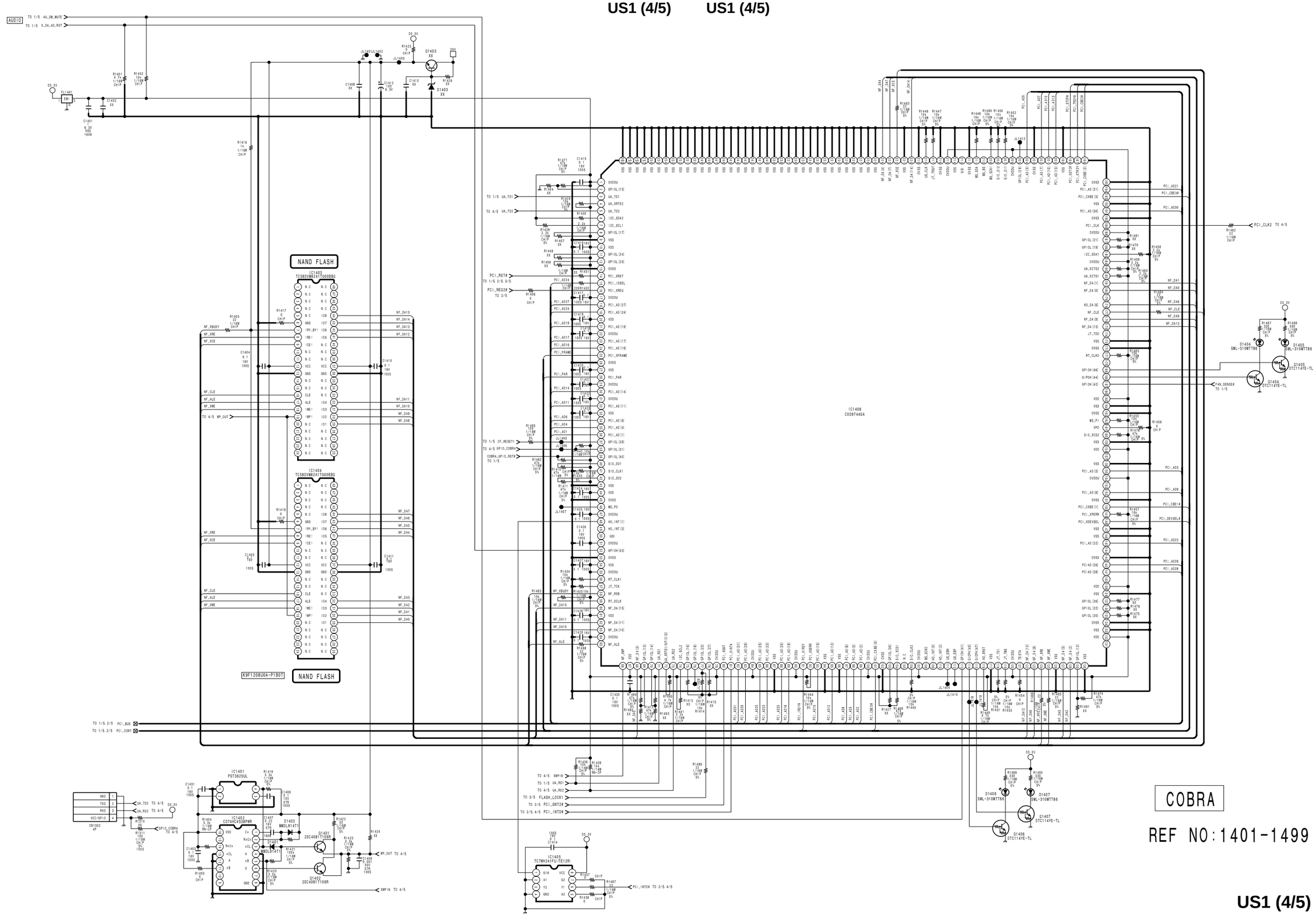
US1 (3/5)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IC1404
TC58DVM82A1TG00BBQ
K9F1208U0A-PTB0T
NAND FLASH
IC1406
CX09744GA
IC1401
PST3625UL
IC1402
CD74HC4538PWR
IC1405
TC7WH241FU(TE12R)
COBRA
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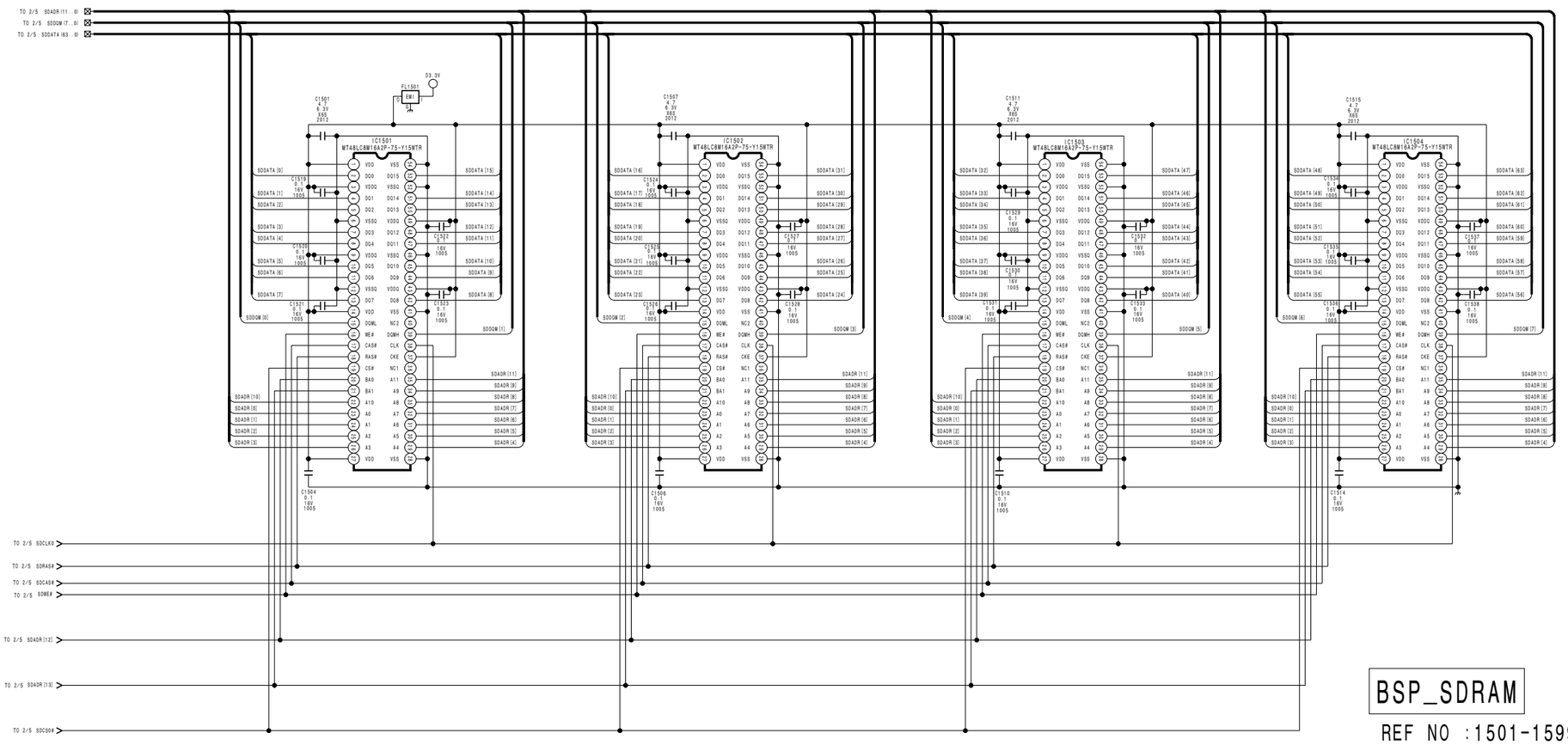

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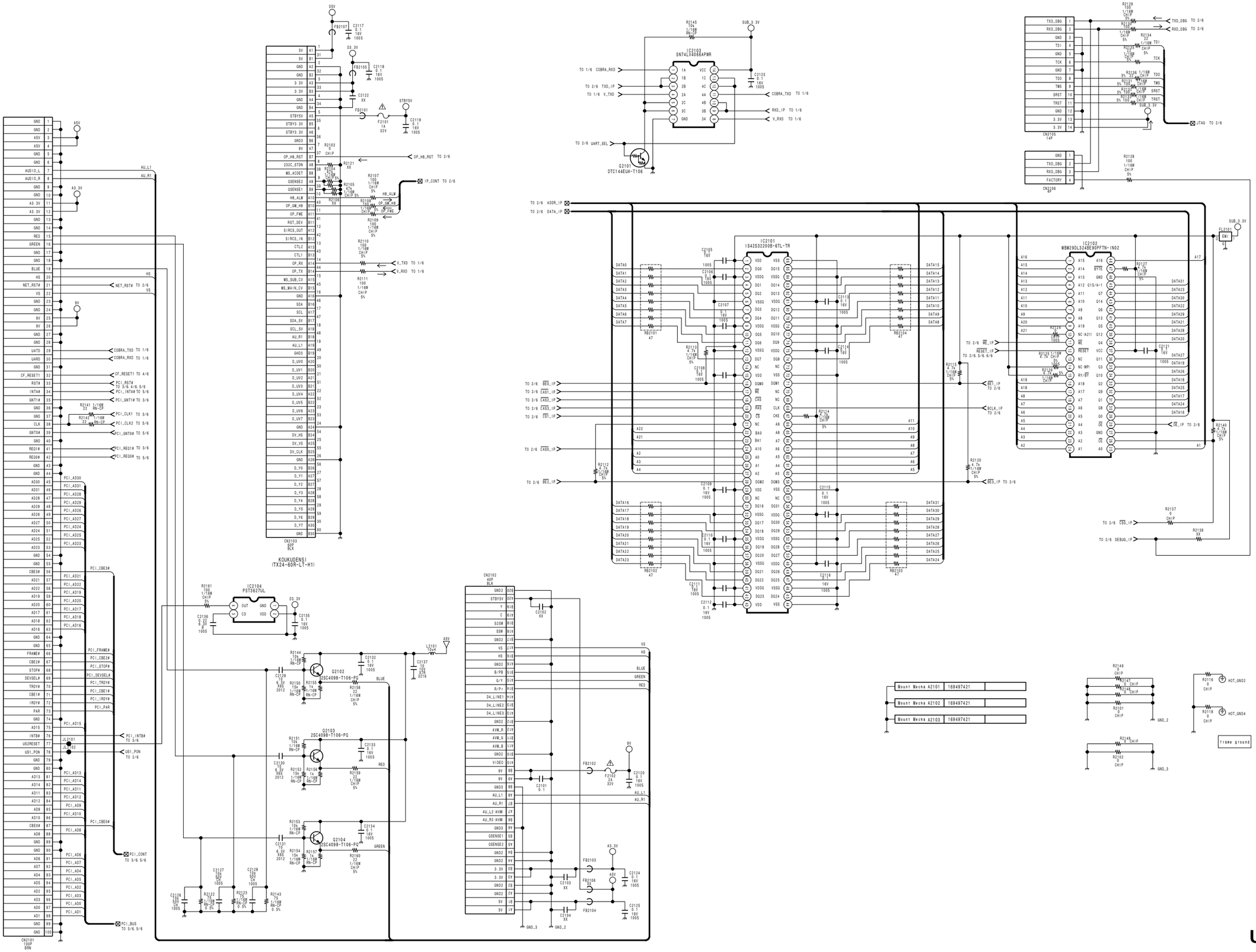
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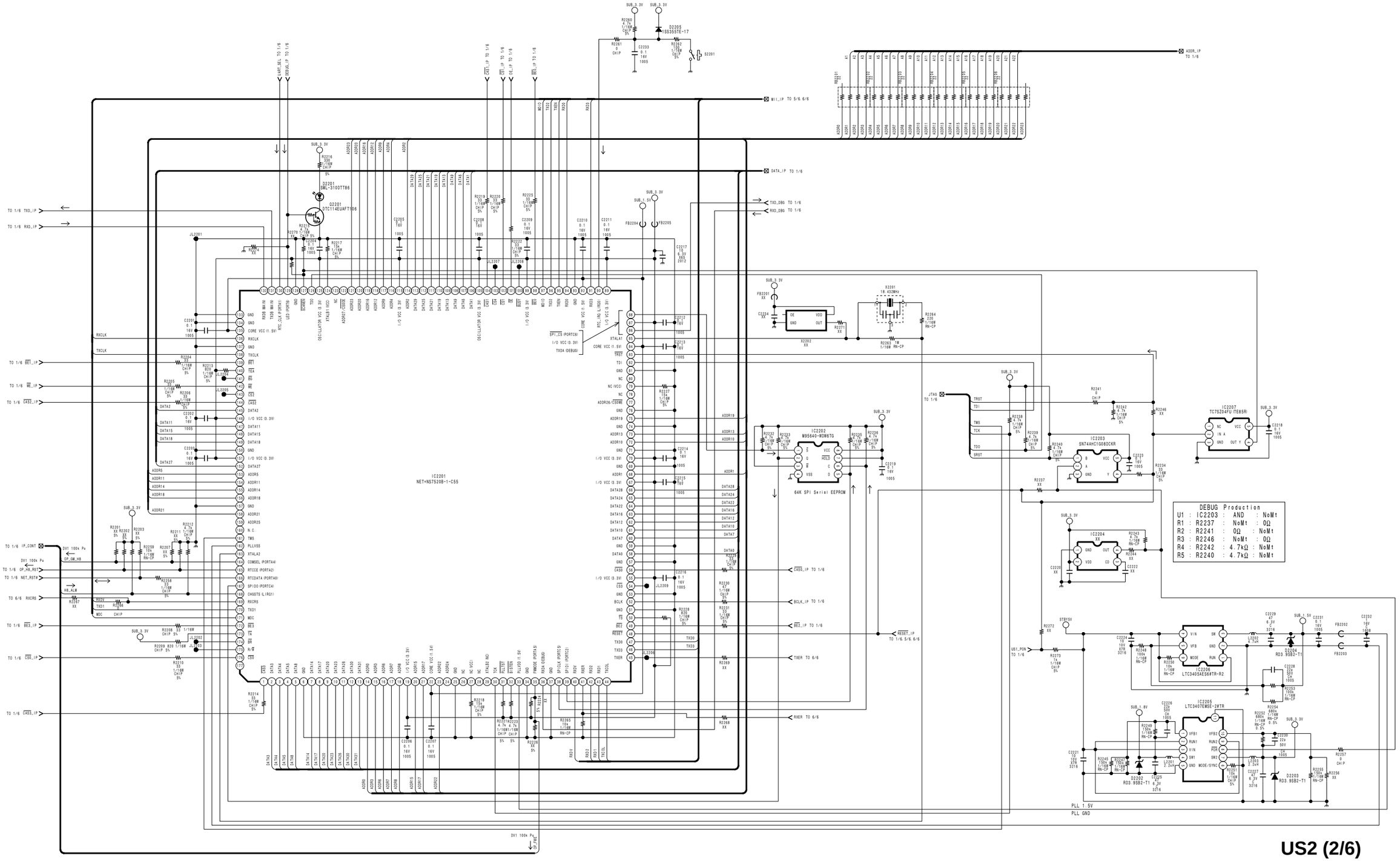
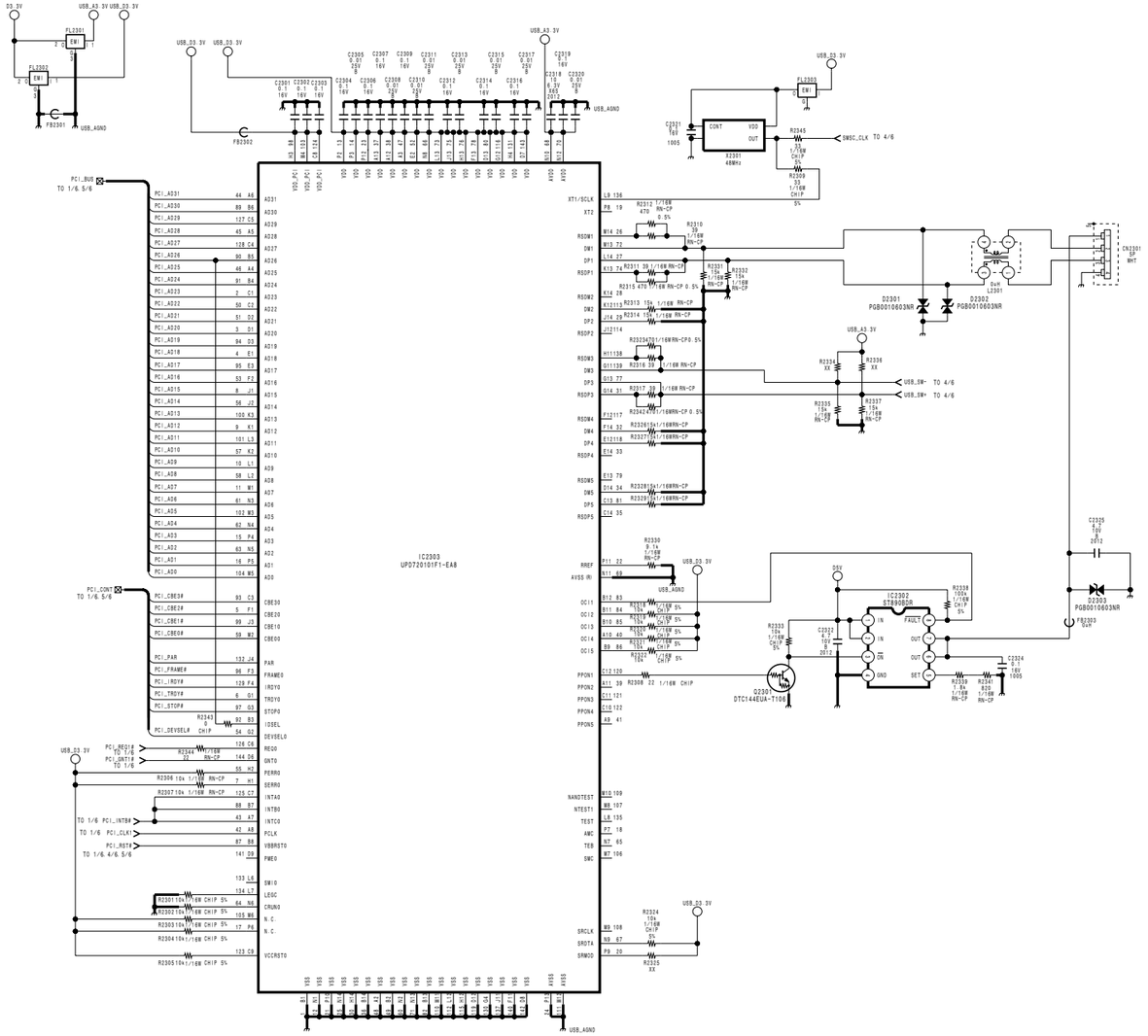
IC2102
W89290L3248E90PFTN-IN02
IC2103
SN74LV4066APWR
IC2104
PST3627UL
Q2101
DTC144EUA-T106
Q2102
2SC4098-T106-PQ
Q2103
2SC4098-T106-PQ
Q2104
2SC4098-T106-PQ
CN2101
156P
BRN
CN2102
40P
BLK
CN2103
60P
BLK
CN2105
14P
CN2106
4P
KOUKUDENSI
(TX24-60R-LT-H1)
SW ON SW OFF
CSO_IP : Flash Enable : Disable
DEBUG_IP : Force_Factory : Normal
Mount Mecha A2101 169497421
Mount Mecha A2102 169497421
Mount Mecha A2103 169497421
frame ground



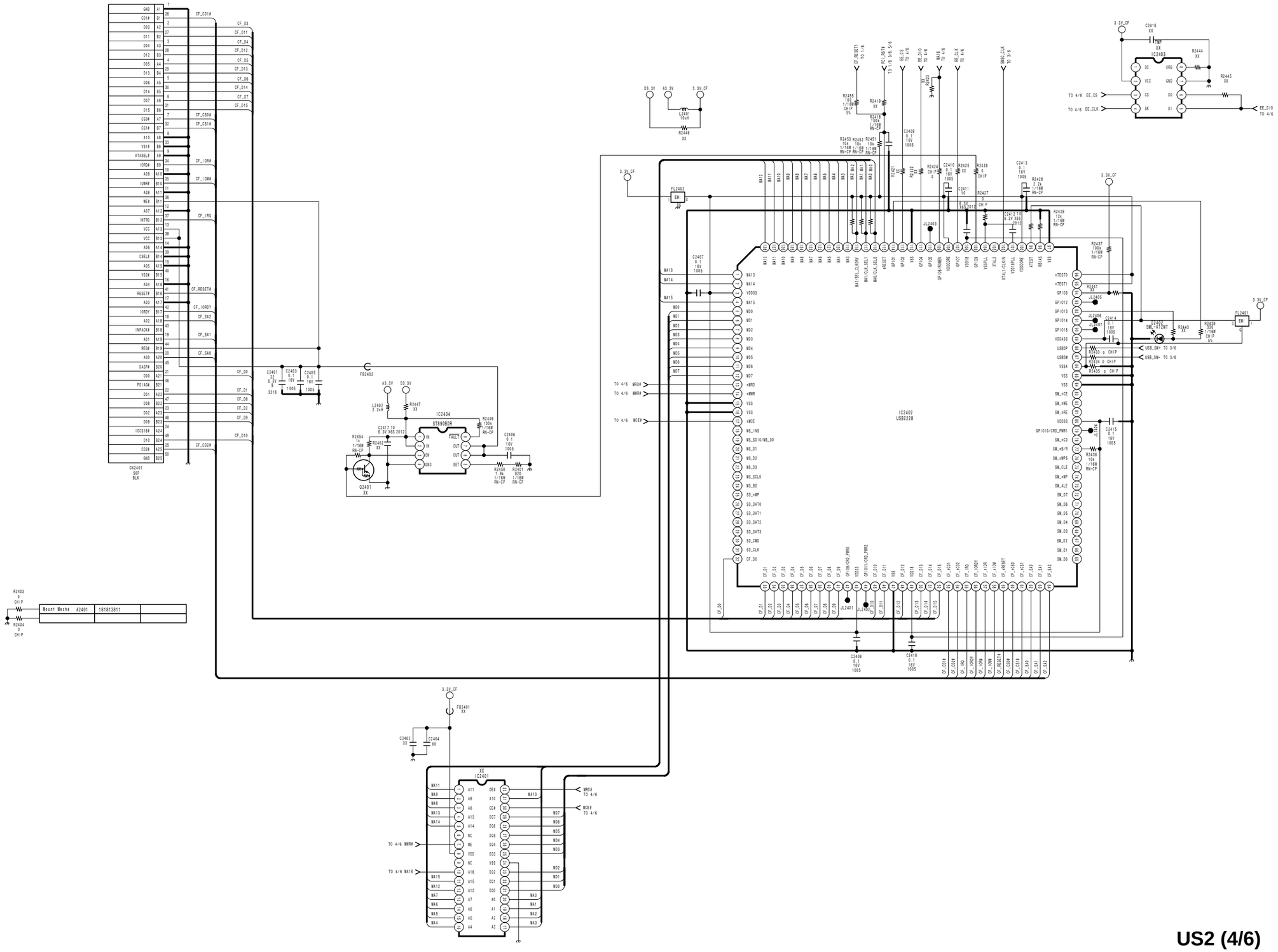
A B C D E F G H

US2 (2/6)



USB HOST

US2 (3/6)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BLK
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CF_D7
CF_D15
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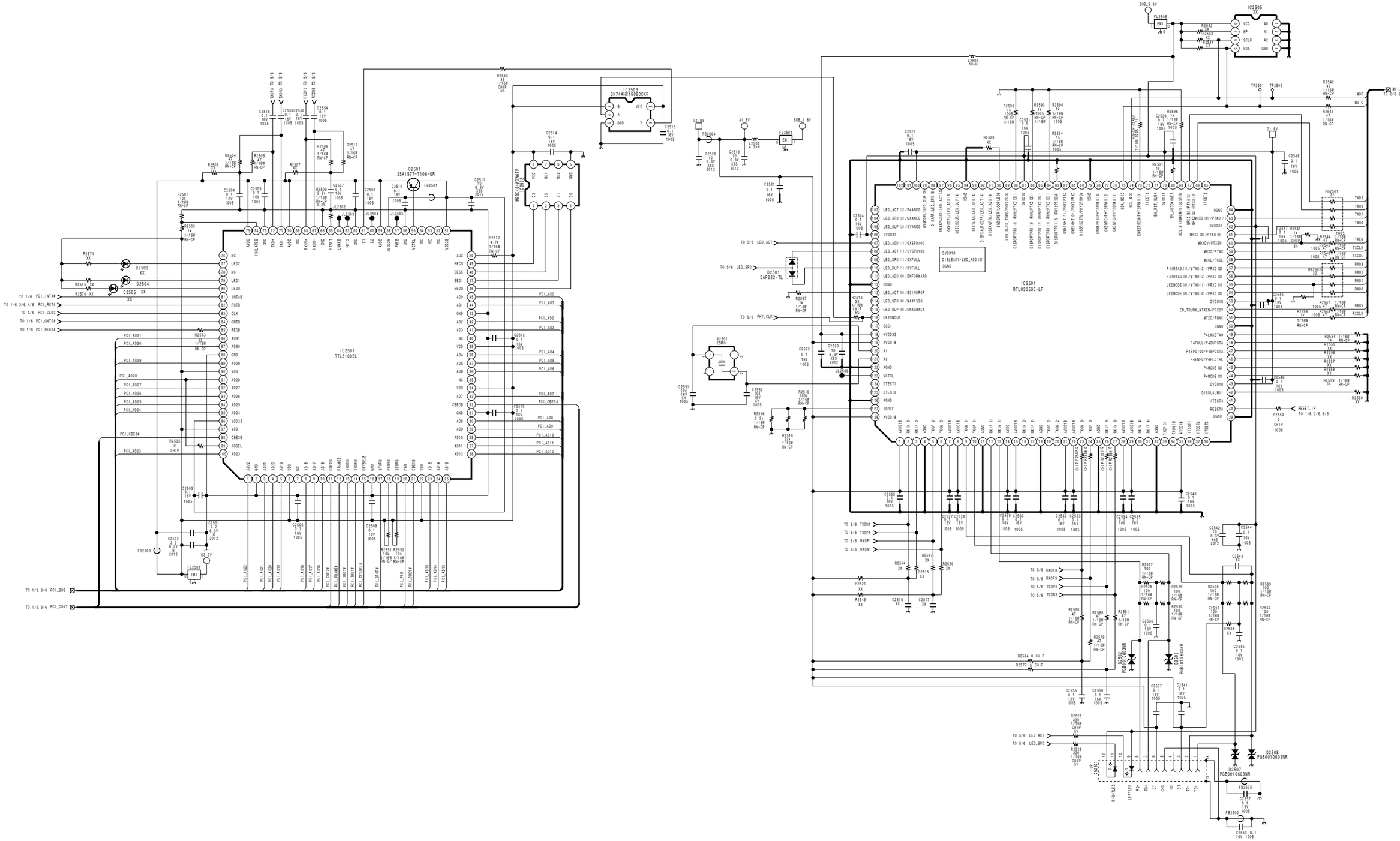
CF_CS1#
CF_IOR#
CF_IOW#
CF_IRQ
CF_RESET#
CF_IORDY
CF_SA2
CF_SA1
CF_SA0
CF_D0
CF_D1
CF_D8
CF_D2
CF_D9
CF_D10
CF_CD2#
C2401 22 6.3V 3216
C2403 0.1 16V 1005
C2405 0.1 16V 1005
FB2402
A3_3V
D3_3V
L2402 2.2uH
R2447 XX
C2417 10 6.3V X6S 2012
IC2404
ST890DR
IN
EN
GND
FAULT
OUT
SET
R2449 100k 1/16W RN-CP
C2406 0.1 16V 1005
R2450 1.8k 1/16W RN-CP
R2421 820 1/16W RN-CP
R2454 1k 1/16W RN-CP
R2402 XX
Q2401 XX
D3_3V
A3_3V
3.3V_CF
L2401 10uH
R2446 XX
FL2402
EMI
R2455 100 1/16W CHIP 5%
R2419 XX
R2418 100k 1/16W RN-CP
R2453 10k 1/16W RN-CP
R2452 10k 1/16W RN-CP
R2451 10k 1/16W RN-CP
C2409 0.1 16V 1005
R2423 XX
R2424 CHIP 0
C2410 0.1 16V 1005
R2425 XX
R2426 0 CHIP
C2411 10 6.3V X6S 2012
R2427 0 CHIP
C2413 0.1 16V 1005
R2428 2.2k 1/16W RN-CP
C2412 10 6.3V X6S 2012
R2429 10k 1/16W RN-CP
JL2403
JL2404
JL2405
JL2406
JL2407
C2407 0.1 16V 1005
IC2402
USB2228
R2437 100k 1/16W RN-CP
R2441 XX
R2442 SML-210MT
R2443 XX
R2438 330 1/16W CHIP 5%
FL2401
R2433 0 CHIP
R2434 0 CHIP
R2435 0 CHIP
C2414 0.1 16V 1005
C2415 0.1 16V 1005
R2436 10k 1/16W RN-CP
C2408 0.1 16V 1005
C2418 0.1 16V 1005
IC2403
R2444 XX
R2445 XX
C2416 XX
TO 4/6 EE_CS
TO 4/6 EE_CLK
EE_DIO TO 4/6
USB_SW+ TO 3/6
USB_SW- TO 3/6
TO 4/6 WRD#
TO 4/6 WWR#
TO 4/6 WCE#
R2403 0 CHIP
R2404 0 CHIP
Mount Mecha A2401 181813811
FB2401 XX
C2401 XX
C2404 XX
IC2401
MRD# TO 4/6
MCE# TO 4/6
TO 4/6 MWR#
TO 4/6 MA16

US2 (4/6)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D2501
DAP222-TL
D2502
D2503
D2504
D2505
D2506
D2507
D2508
PGB0010603NR
FL2501
FL2502
FL2503
FL2504
FL2505
IC2505
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TO 1/6 PCI_INTA#
TO 1/6 3/6 4/6 PCI_RST#
TO 1/6 PCI_CLK2
TO 1/6 PCI_GNT0#
TO 1/6 PCI_REQ0#
TO 1/6 PCI_BUS
TO 1/6 3/6 PCI_CONT
TO 5/6 LED_ACT
TO 5/6 LED_SPD
TO 6/6 PHY_CLK
TO 6/6 TXDN1
TO 6/6 TXDP1
TO 6/6 RXDP1
TO 6/6 RXDN1
TO 5/6 RXDN3
TO 5/6 RXDP3
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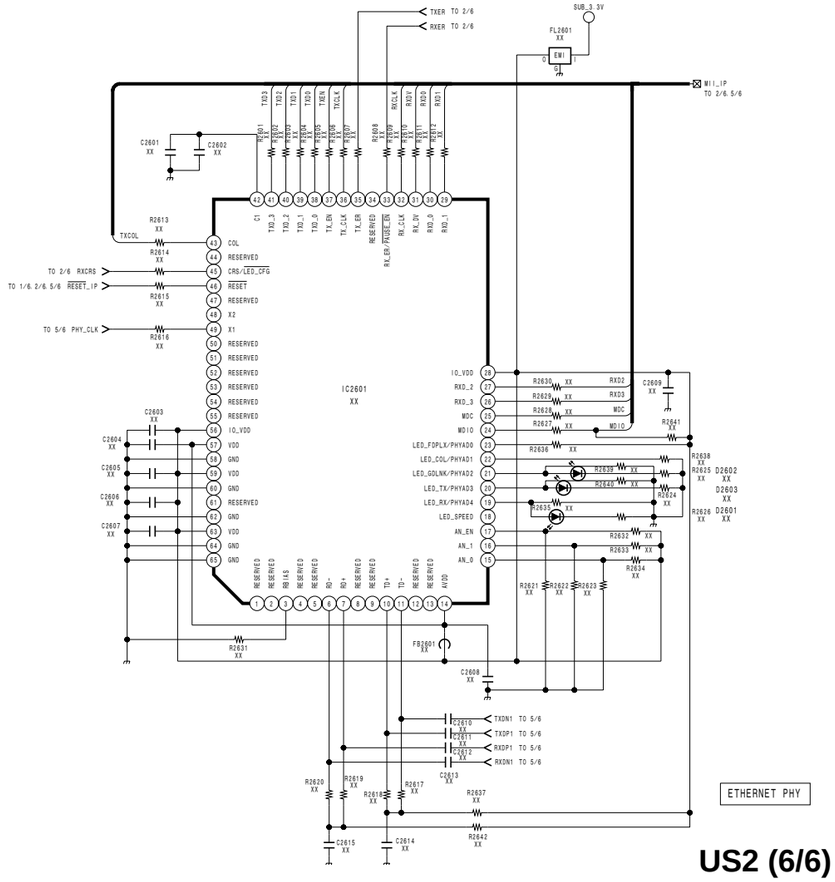
TO 5/6 TXDN3
WII_IP
TO 2/6 6/6
RESET_IP
TO 1/6 2/6 6/6


TXER TO 2/6
RXER TO 2/6
SUB_3.3V
FL2601
XX
EMI
MII_IP
TO 2/6 5/6
IC2601
XX
ETHERNET PHY

US2 (6/6)

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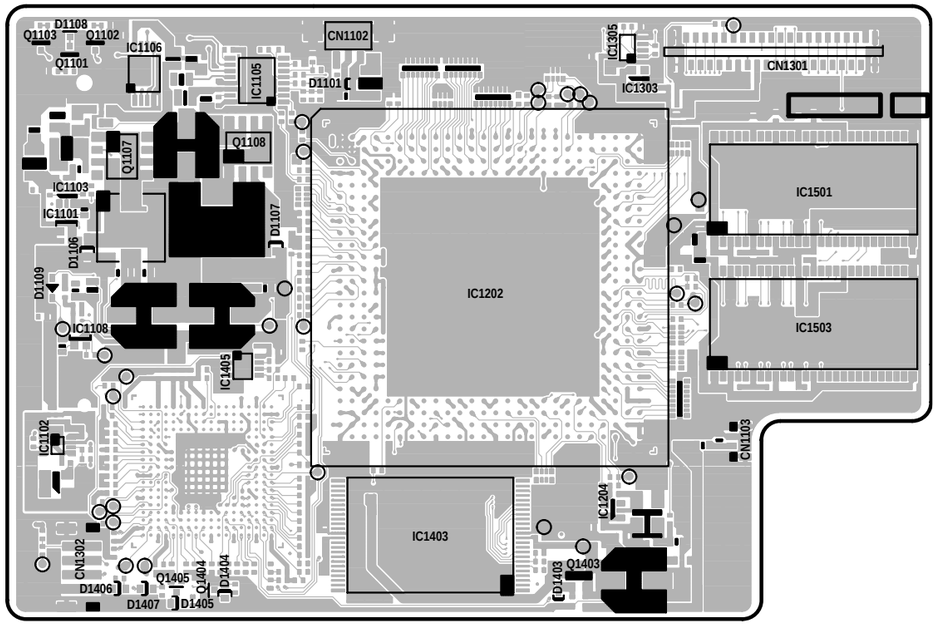

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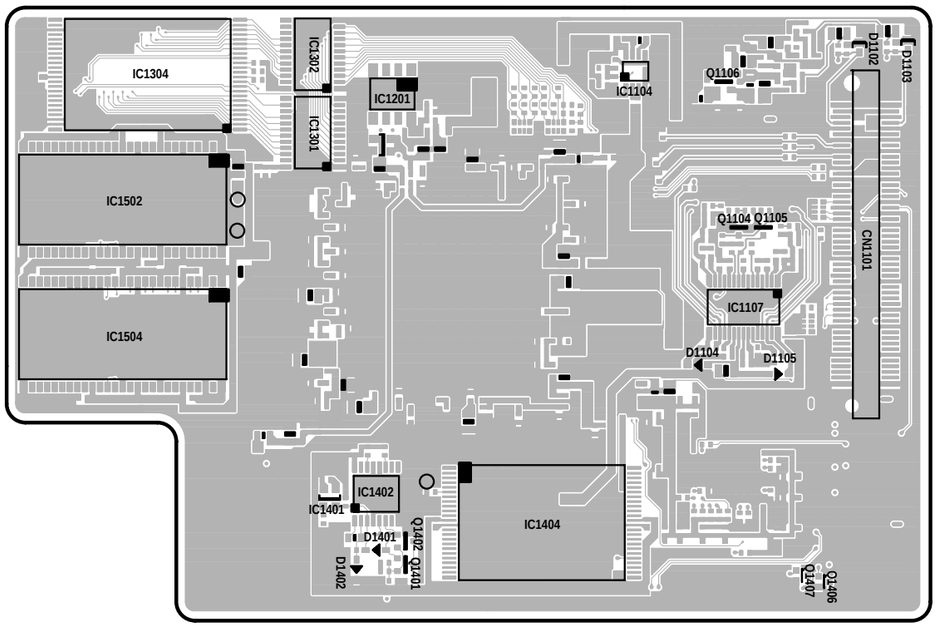

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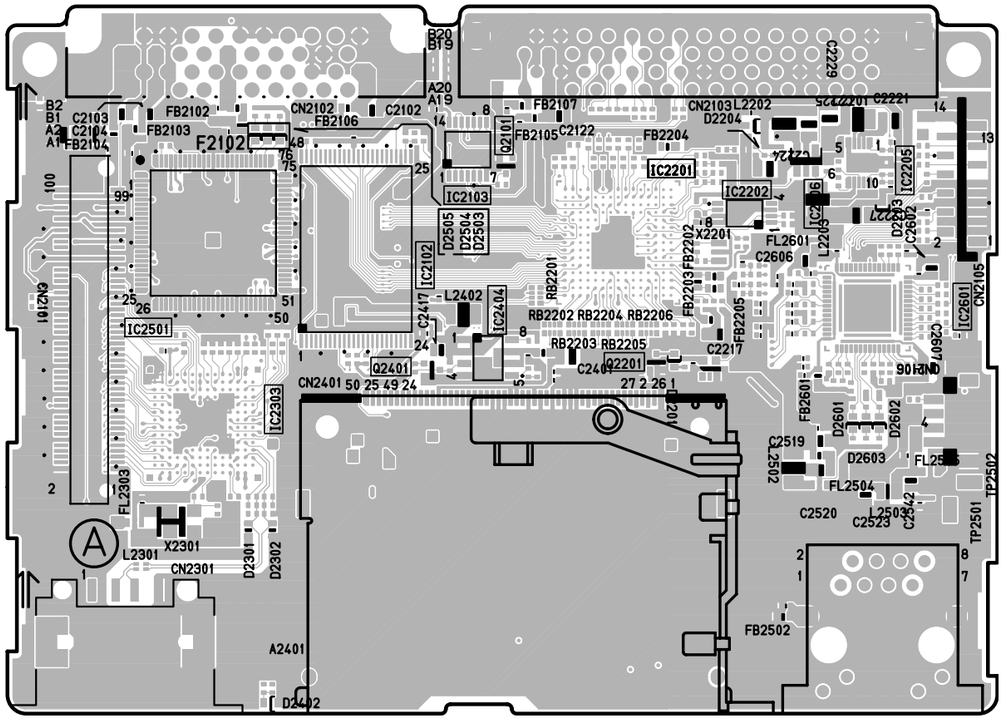

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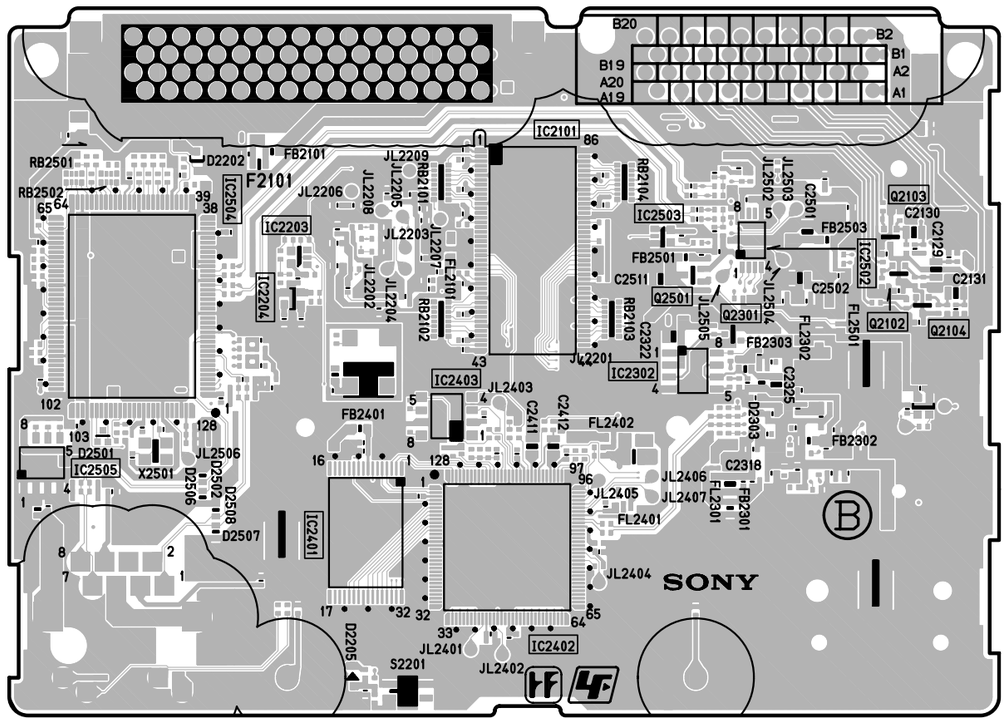

US2 -B SIDE-
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Sony Corporation

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